PHASE II ENVIRONMENTAL BASELINE SURVEY OF McCORMICK RANCH, KIRTLAND AIR FORCE BASE, NEW MEXICO

Part 5 of 5

Grace Hagaraty
Jeff Johnson
Pete Middlebrooks

GRAM, Inc
8500 Menaul Blvd NE
Albuquerque, NM 87112

31 January 1996

Final Report

PHILLIPS LABORATORY
Support Directorate
AIR FORCE MATERIEL COMMAND
KIRTLAND AIR FORCE BASE, NM 87117-5776

PL-TR-95-1042

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This report has been approved for publication.

CARLA J. DOGGETT
Project Manager

FOR THE COMMANDER

MICHELLE L. HEDRICK, GS-13
Chief, Safety & Environmental Office

JAMES D. LEDBETTER, Col, USAF
Director, Support Directorate

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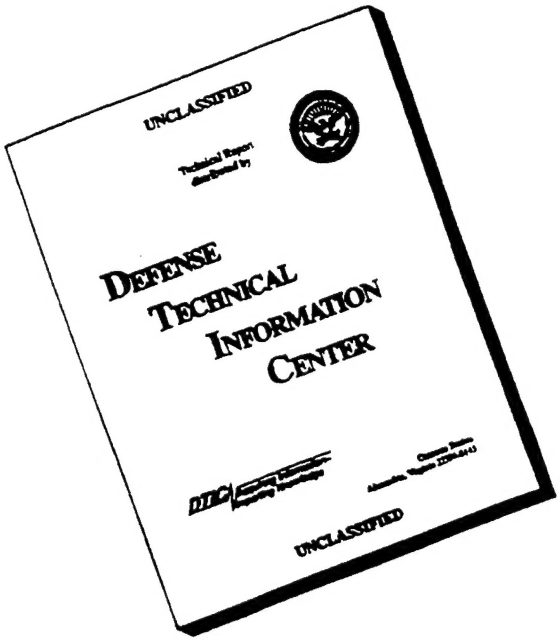

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1. Report Date (dd-mm-yy) 31 January 1996	2. Report Type Final Report	3. Dates covered (from... to) Oct 93 - Jan 95
4. Title & subtitle Phase II Environmental Baseline Survey of McCormick Ranch, Kirtland AFB, NM, Part 5 of 5		5a. Contract or Grant # F29601-93-C-0219
		5b. Program Element # 62601F
6. Author(s) Grace Hagaraty, GRAM, Inc. Jeff Johnson, GRAM, Inc. Pete Middlebrooks, LATA		5c. Project # 9993
		5d. Task # 00
		5e. Work Unit # SE
7. Performing Organization Name & Address GRAM, Inc. 8500 Menaul Blvd. N.E. Albuquerque, New Mexico 87112		8. Performing Organization Report #
9. Sponsoring/Monitoring Agency Name & Address Phillips Laboratory 3550 Aberdeen Avenue, SE Kirtland AFB, NM 87117-5776		10. Monitor Acronym SE
		11. Monitor Report # PL-TR-95-1042, Part 5 of 5

12. Distribution/Availability Statement Approved for Public Release; Distribution is Unlimited

13. Supplementary Notes Work done in association with Los Alamos Technical Associates

14. Abstract The Phase II EBS results document the extent of environmental contamination believed to be present on McCormick Ranch. Explosive test areas having the greatest potential for containing soil contaminants were identified using the following geophysical survey methods: EM 31 terrain conductivity meter, magnetometer/gradiometer, and ground penetrating radar. From the geophysical surveys five areas were selected to conduct further environmental analysis. A total of 310 soil samples were collected from the five areas and 13 specific high explosive test sites. The samples were screened for semi-volatile organic compounds, PETN, TNT, TNT-degradation products, nitrates and radioactivity. Laboratory analyses were performed and no explosives or degradation products were identified. Semi-volatile organic compounds were found in 2 samples, manganese was detected in 3 samples, nitrates were discovered below soil action levels and radiation levels were below background. Consequently, it is unlikely that significant contamination exists.

15. Subject Terms McCormick Ranch, Environmental Baseline Survey, Contamination

16. Report Unclassified	17. Abstract Unclassified	18. This Page Unclassified	19. Limitation of Abstract Unlimited	20. # of Pages 260	21. Responsible Person (Name and Telephone #) Michelle Hedrick 505-846-4574

Quanterra Environmental Services

Quanterra Incorporated
880 Riverside Parkway
West Sacramento, California 95605

916 373-5600 Telephone
916 372-1059 Fax

October 10, 1994
QUANTERRA PROJECT NUMBER: 077682
PO/CONTRACT: 006

Jeff Johnson
Gram, Inc.
8500 Menaul Blvd. NE, #B-370
Albuquerque, NM 87112

Dear Mr. Johnson:

This report contains the analytical results for the one aqueous and eleven soil samples which were received under chain of custody by Quanterra West Sacramento on 14 September 1994. These samples are associated with your Kirtland AFB project.

The case narrative is an integral part of this report.

If you have any questions, please call me at (916) 374-4362.

Sincerely,

Diana L. Brooks
Project Manager

rs

Quanterra
Environmental Services

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QUANTERRA PROJECT NUMBER 077682

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QUANTERRA PROJECT NUMBER 077682

Quanterra
Environmental Services

CASE NARRATIVE

QUANTERRA PROJECT NUMBER 077682

General Comments

Temperature blanks were not present upon sample receipt at the laboratory. The ambient temperatures were 2.2 degrees C and 4.1 degrees C.

Semivolatile Organics - Method 8270

The Laboratory Control Sample (LCS) 20SEP94-11A was found to have 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichlorobenzene, Hexachloroethane, 2-Nitroaniline, Dimethyl phthalate, and Bis(2-ethylhexyl)phthalate above the control limits.

The Laboratory Control Sample (LCS) 20SEP94-11A was found to have 3-Nitroaniline above the control limits.

These compounds were not detected in the samples, thus no correction action was necessary.

Sample 02960001 (Quanterra ID 077682-009) has 2,4,6-Tribromophenol surrogate recovery above the control limits. The sample was not detected for analytes, thus the no corrective action was necessary.

Due to electronic deliverable limitations, the library search data is available in hardcopy format only.

Specialty Explosives by HPLC/MS - Method 8321

Sample 03140001 (Quanterra ID 077682-012) was re-extracted outside of the analytical holding time due to the initial extraction and analysis resulted in poor chromatography.

The Duplicate Control Sample (DCS) has Tetryl recoveries above the control limit. The sample was not detected for analytes, thus no corrective action was necessary.

Tetryl was above the continuing calibration control limits which was associated with samples 00970001, 01090001, 02660001, 02960001,01130001, and 01200001 (Quanterra IDs 077682-001 thru -011). The end bracketing sample for Tetryl was within the control limits. The samples were subsequesntly re-injected with Tetryl within the control limits.

CASE NARRATIVE - cont.

QUANTERRA PROJECT NUMBER 077682

Selected Metals - Various Methods

The ICAP method blank (22SEP94-TX) was found to have 5.8 mg/kg of Iron present.

No other anomalies were associated with this report.

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QUANTERRA'S QUALITY ASSURANCE PROGRAM

Quanterra has implemented an extensive Quality Assurance (QA) program to ensure the production of scientifically sound, legally defensible data of known documental quality. A key element of this program is Quanterra's Laboratory Control Sample (LCS) system. Controlling lab operations with LCS (as opposed to matrix spike/matrix spike duplicate samples), allows the lab to differentiate between bias as a result of procedural errors versus bias due to matrix effects. The analyst can then identify and implement the appropriate corrective actions at the bench level, without waiting for extensive senior level review or costly and time-consuming sample re-analyses. The LCS program also provides our client with information to assess batch, and overall laboratory performance.

Laboratory Control Samples - (LCS)

Laboratory Control Samples (LCS) are well-characterized, laboratory generated samples used to monitor the laboratory's day-to-day performance of routine analytical methods. The results of the LCS are compared to well-defined laboratory acceptance criteria to determine whether the laboratory system is "in control". Three types of LCS are routinely analyzed: Duplicate Control Samples (DCS), Single Control Samples (SCS), and method blanks. Each of these LCS are described below.

Duplicate Control Samples. A DCS is a well-characterized matrix (blank water, sand, sodium sulfate or celite) which is spiked with certain target parameters and analyzed at approximately 10% of the sample load in order to establish method-specific control limits.

Single Control Samples. An SCS consists of a control matrix that is spiked with surrogate compounds appropriate to the method being used. In cases where no surrogate is available, (e.g. metals or conventional analyses) a single control sample identical to the DCS serves as the control sample. An SCS is prepared for each sample lot. Accuracy is calculated identically to the DCS.

Method Blank Results. A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your samples.

SAMPLE DESCRIPTION INFORMATION
for
Gram, Inc.

Lab ID	Client ID		Matrix	Sampled Date	Sampled Time	Received Date
077682-0001-SA	01780001	(0.00,3.00,)	SOIL	07 SEP 94	15:00	14 SEP 94
077682-0002-SA	01790001	(0.00,3.00,)	SOIL	07 SEP 94	15:00	14 SEP 94
077682-0003-SA	01790002	(0.00,3.00,)	SOIL	07 SEP 94	15:00	14 SEP 94
077682-0004-SA	01800001	(0.00,3.00,)	SOIL	07 SEP 94	15:00	14 SEP 94
077682-0005-SA	01930001	(0.00,3.00,)	SOIL	08 SEP 94	09:30	14 SEP 94
077682-0006-SA	00970001	(3.00,6.00,)	SOIL	09 SEP 94	09:00	14 SEP 94
077682-0007-SA	01090001	(3.00,6.00,)	SOIL	09 SEP 94	10:30	14 SEP 94
077682-0008-SA	02660001	(2.00,3.00,)	SOIL	09 SEP 94	11:23	14 SEP 94
077682-0009-SA	02960001	(2.50,4.00,)	SOIL	09 SEP 94	11:38	14 SEP 94
077682-0010-SA	01130001	(0.00,3.00,)	SOIL	12 SEP 94	08:45	14 SEP 94
077682-0011-SA	01200001	(0.00,3.00,)	SOIL	12 SEP 94	09:15	14 SEP 94
077682-0012-SA	03140001	(0.00,0.00,)	AQUEOUS	13 SEP 94	11:00	14 SEP 94

SOIL SAMPLES

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	1 16-oz glass jar per sample location						
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	glass						
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	16 oz						
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C						
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED							
RTLD154 - 0266 - 0001	S	9/6/94 1123	✓	✓	✓	✓	✓	✓	✓
RTLD154 - 0296 - 0001	S	9/9/94 1138	✓	✓	✓	✓	✓	✓	✓
RTLD154 - 0178 - 0001	S	9/7/94 1500	✓	✓		✓	✓	✓	✓
RTLD154 - 0179 - 0001	S	9/7/94 1500	✓	✓	✓	✓	✓	✓	✓
RTLD154 - 0179 - 0002	S	9/7/94 1500	✓	✓	✓	✓	✓	✓	✓
RTLD154 - 0180 - 0001	S	9/7/94 1500	✓	✓		✓	✓	✓	✓
RTLD154 - 0193 - 0001	S	9/8/94 0930	✓	✓	✓	✓	✓	✓	✓
RTLD154 - 0097 - 0001	S	9/9/94 0900	✓	✓	✓	✓	✓	✓	✓
RTLD154 - 0109 - 0001	S	9/6/94 1030	✓	✓		✓	✓	✓	✓
RTLD154 - 0113 - 0001	S	9/12/94 0845	✓	✓		✓	✓	✓	✓
RTLD154 - 0120 - 0001	S	9/12/94 0915	✓	✓		✓	✓	✓	✓

MATRIX:
S - SOIL*
W - WATER
O - OTHER

NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT LEAST IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

Samples rec'd in good condition. MCS 9/

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
Gram, Inc	Rhonda Metten	GRAM, Inc	Jeff Johnson	9/13	1660

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
GRAM, Inc	Jeff Johnson	FED EX		823535 4433	9/13	5:27

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
		Quanterra		9-14-94	0855

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	4	1	2	1	1	1	1
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	AG	P	AG	P	AG	P	P
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	1L	1L	1L	1L	250	1L	.5L
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C	H_2SO_4, 4°	4°C	HNO_3, 4°	HNO_3, 4°	HNO_3, 4°	NaOH, 4°
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED						
KRTLD154 - 0314-0001	W	9/13/94 1100	X	X	X	X	X	X	X
KRTLD154 - _____									
KRTLD154 - _____									
KRTLD154 - _____									
KRTLD154 - _____									
KRTLD154 - _____									
KRTLD154 - _____									
KRTLD154 - _____									
KRTLD154 - _____									
KRTLD154 - _____									
KRTLD154 - _____									

MATRIX:
S - SOIL*
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

Sample received in good condition. TNCD 9/

RELINQUISHED BY:		RECEIVED BY:		DATE	TIME
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE		

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
GRAM, Inc.	Jeff Johnson	Fed Ex		823535 4437	9/13	527

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:		DATE	TIME
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE		
				9-14-94	0855

Quanterra
Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 01200001 (0.00,3.00,)
Lab ID: 077682-0011-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 12 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

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Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Special Services - LC Mass Spectrometry

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077682-0001-SA	SOIL	8321-IRP-S	19 SEP 94-7B	19 SEP 94-7B
077682-0002-SA	SOIL	8321-IRP-S	19 SEP 94-7B	19 SEP 94-7B
077682-0003-SA	SOIL	8321-IRP-S	19 SEP 94-7B	19 SEP 94-7B
077682-0004-SA	SOIL	8321-IRP-S	19 SEP 94-7B	19 SEP 94-7B
077682-0005-SA	SOIL	8321-IRP-S	19 SEP 94-7B	19 SEP 94-7B
077682-0006-SA	SOIL	8321-IRP-S	19 SEP 94-7B	19 SEP 94-7B
077682-0007-SA	SOIL	8321-IRP-S	19 SEP 94-7B	19 SEP 94-7B
077682-0008-SA	SOIL	8321-IRP-S	19 SEP 94-7B	19 SEP 94-7B
077682-0009-SA	SOIL	8321-IRP-S	19 SEP 94-7B	19 SEP 94-7B
077682-0010-SA	SOIL	8321-IRP-S	19 SEP 94-7B	19 SEP 94-7B
077682-0011-SA	SOIL	8321-IRP-S	19 SEP 94-7B	19 SEP 94-7B

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 01780001 (0.00,3.00,)
Lab ID: 077682-0001-SA
Matrix: SOIL Sampled: 07 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 19 SEP 94 Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi Approved By: Karla Buechler

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Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 01790001 (0.00,3.00,)
Lab ID: 077682-0002-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

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Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 01790002 (0.00,3.00,)
Lab ID: 077682-0003-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

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T-P5

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 01800001 (0.00,3.00,)
Lab ID: 077682-0004-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

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I-R06

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 01930001 (0.00,3.00,)
Lab ID: 077682-0005-SA
Matrix: SOIL Sampled: 08 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 20 SEP 94 Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi Approved By: Karla Buechler

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I-307

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 00970001 (3.00,6.00,)
Lab ID: 077682-0006-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 09 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

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I-508

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 01090001 (3.00,6.00,)
Lab ID: 077682-0007-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 09 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

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Quanterra
Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 02660001 (2.00,3.00,)
Lab ID: 077682-0008-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 09 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

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T-310

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 01130001 (0.00,3.00,)
Lab ID: 077682-0010-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 12 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

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Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 02960001 (2.50,4.00,)
Lab ID: 077682-0009-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 09 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

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Quanterra
Environmental Services

METHOD BLANK REPORT
Special Services - LC Mass Spectrometry

Analyte	Result	Units	Reporting Limit
Test: 8321-IRP-EXP-S Matrix: SOIL QC Lot: 19 SEP 94-7B QC Run: 19 SEP 94-7B			
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50
Test: 8321-IRP-EXP-S Matrix: SOIL QC Lot: 19 SEP 94-7B QC Run: 19 SEP 94-7B			
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Special Services - LC Mass Spectrometry

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
Category: 8321-IRP-S Explosives by HPLC/MS				
Matrix: SOIL				
QC Lot: 19 SEP 94-7B QC Run: 19 SEP 94-7B				
Concentration Units: mg/kg				
Nitroglycerin	5.00	6.07	121	65-135
PETN	2.50	2.78	111	65-135

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 03140001 (0.00,0.00,)
Lab ID: 077682-0012-SA
Matrix: AQUEOUS Sampled: 13 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 28 SEP 94 Analyzed: 06 OCT 94

Parameter	Result	Units	Reporting Limit
Nitroglycerin	ND	ug/L	50
PETN	ND	ug/L	50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi Approved By: Karla Buechler

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Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Special Services - LC Mass Spectrometry

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077682-0012-SA	AQUEOUS	8321-IRP-A	27 SEP 94-7B	27 SEP 94-7B

Quanterra
Environmental Services

METHOD BLANK REPORT
Special Services - LC Mass Spectrometry
Project: 077682

Test: 8321-IRP-EXP-A Specialty Explosives by HPLC/MS
Matrix: AQUEOUS
QC Lot: 19 SEP 94-7B QC Run: 27 SEP 94-7B

Analyte	Result	Units	Reporting Limit
Nitroglycerin	ND	ug/L	50
PETN	ND	ug/L	50

ND = Not Detected

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Special Services - LC Mass Spectrometry
Project: 077682

Category: 8321-IRP-A Explosives by HPLC/MS
Matrix: AQUEOUS
QC Lot: 19 SEP 94-7B QC Run: 27 SEP 94-7B
Concentration Units: ug/L

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
Nitroglycerin	800	603	75	65-135
PETN	400	420	105	65-135

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

T-318

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 01780001 (0.00,3.00,)
Lab ID: 077682-0001-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 21 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: YING TAO

Approved By: Karla Buechler

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Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 01790001 (0.00,3.00,)
Lab ID: 077682-0002-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 21 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: YING TAO

Approved By: Karla Buechler

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Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 01790002 (0.00,3.00,)
Lab ID: 077682-0003-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 21 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: YING TAO

Approved By: Karla Buechler

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T821

Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 01800001 (0.00,3.00,)
Lab ID: 077682-0004-SA
Matrix: SOIL Sampled: 07 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 20 SEP 94 Analyzed: 21 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: YING TAO Approved By: Karla Buechler

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J-022

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 01930001 (0.00,3.00,)
Lab ID: 077682-0005-SA
Matrix: SOIL Sampled: 08 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 20 SEP 94 Analyzed: 21 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: YING TAO Approved By: Karla Buechler

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Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 00970001 (3.00,6.00,)
Lab ID: 077682-0006-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 09 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 23 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

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Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 01090001 (3.00,6.00,)
Lab ID: 077682-0007-SA
Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 20 SEP 94 Analyzed: 23 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall Approved By: Karla Buechler

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Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 02660001 (2.00,3.00,)
Lab ID: 077682-0008-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 09 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 23 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

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Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 02960001 (2.50,4.00,)
Lab ID: 077682-0009-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 09 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 23 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

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Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 01130001 (0.00,3.00,)
Lab ID: 077682-0010-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 20 SEP 94 Analyzed: 23 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall Approved By: Karla Buechler

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Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 01200001 (0.00,3.00,)
Lab ID: 077682-0011-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 12 SEP 94
Prepared: 20 SEP 94

Received: 14 SEP 94
Analyzed: 23 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

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Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Special Services - LC Mass Spectrometry

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077682-0001-SA	SOIL	8330-IRP-S	19 SEP 94-7A	19 SEP 94-7A
077682-0002-SA	SOIL	8330-IRP-S	19 SEP 94-7A	19 SEP 94-7A
077682-0003-SA	SOIL	8330-IRP-S	19 SEP 94-7A	19 SEP 94-7A
077682-0004-SA	SOIL	8330-IRP-S	19 SEP 94-7A	19 SEP 94-7A
077682-0005-SA	SOIL	8330-IRP-S	19 SEP 94-7A	19 SEP 94-7A
077682-0006-SA	SOIL	8330-IRP-S	19 SEP 94-7A	19 SEP 94-7A
077682-0007-SA	SOIL	8330-IRP-S	19 SEP 94-7A	19 SEP 94-7A
077682-0008-SA	SOIL	8330-IRP-S	19 SEP 94-7A	19 SEP 94-7A
077682-0009-SA	SOIL	8330-IRP-S	19 SEP 94-7A	19 SEP 94-7A
077682-0010-SA	SOIL	8330-IRP-S	19 SEP 94-7A	19 SEP 94-7A
077682-0011-SA	SOIL	8330-IRP-S	19 SEP 94-7A	19 SEP 94-7A

METHOD BLANK REPORT
Special Services - LC Mass Spectrometry

Test: 8330-IRP-KAFB-1C-S
Matrix: SOIL
QC Lot: 19 SEP 94-7A QC Run: 19 SEP 94-7A

Analyte	Result	Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25

Test: 8330-IRP-KAFB-1C-S
Matrix: SOIL
QC Lot: 19 SEP 94-7A QC Run: 19 SEP 94-7A

Analyte	Result	Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25

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LABORATORY CONTROL SAMPLE REPORT
Special Services - LC Mass Spectrometry

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: 8330-IRP-S Explosives by HPLC				
Matrix: SOIL				
QC Lot: 19 SEP 94-7A QC Run: 19 SEP 94-7A				
Concentration Units: mg/kg				
HMX	1.00	0.854	85	75-107
sym-Trinitrobenzene	1.00	0.893	89	65-135
RDX	1.00	0.833	83	70-99
1,3-Dinitrobenzene	1.00	0.813	81	74-99
Nitrobenzene	1.00	0.800	80	71-95
2,4,6-Trinitrotoluene	1.00	0.904	90	75-107
Tetryl	1.00	1.08	108	65-135
2,4-Dinitrotoluene	1.00	0.803	80	72-106
2,6-Dinitrotoluene	1.00	0.768	77	66-102
2-Am-DNT	1.00	0.795	80	77-101
4-Am-DNT	1.00	0.767	77	77-108
2-Nitrotoluene	1.00	0.806	81	72-97
4-Nitrotoluene	1.00	0.846	85	67-110
3-Nitrotoluene	1.00	0.921	92	75-104

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 03140001 (0.00,0.00,)
Lab ID: 077682-0012-SA
Matrix: AQUEOUS
Authorized: 14 SEP 94

Sampled: 13 SEP 94
Prepared: 19 SEP 94

Received: 14 SEP 94
Analyzed: 20 SEP 94

Parameter	Result	Units	Reporting Limit
HMX	ND	ug/L	13
sym-Trinitrobenzene	ND	ug/L	7.3
RDX	ND	ug/L	14
1,3-Dinitrobenzene	ND	ug/L	4.0
Nitrobenzene	ND	ug/L	6.4
2,4,6-Trinitrotoluene	ND	ug/L	6.9
Tetryl	ND	ug/L	4.0
2,4-Dinitrotoluene	ND	ug/L	5.7
2,6-Dinitrotoluene	ND	ug/L	9.4
2-Nitrotoluene	ND	ug/L	12
4-Nitrotoluene	ND	ug/L	8.5
3-Nitrotoluene	ND	ug/L	7.9

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

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Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Special Services - LC Mass Spectrometry

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077682-0012-SA	AQUEOUS	8330-COE-A	19 SEP 94-7A	19 SEP 94-7A

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Environmental Services

METHOD BLANK REPORT
Special Services - LC Mass Spectrometry

Test: 8330-IRPMS-1C-A
Matrix: AQUEOUS
QC Lot: 19 SEP 94-7A QC Run: 19 SEP 94-7A

Analyte	Result	Units	Reporting Limit
HMX	ND	ug/L	13
sym-Trinitrobenzene	ND	ug/L	7.3
RDX	ND	ug/L	14
1,3-Dinitrobenzene	ND	ug/L	4.0
Nitrobenzene	ND	ug/L	6.4
2,4,6-Trinitrotoluene	ND	ug/L	6.9
Tetryl	ND	ug/L	4.0
2,4-Dinitrotoluene	ND	ug/L	5.7
2,6-Dinitrotoluene	ND	ug/L	9.4
2-Nitrotoluene	ND	ug/L	12
4-Nitrotoluene	ND	ug/L	8.5
3-Nitrotoluene	ND	ug/L	7.9

Quanterra
Environmental Services

DUPLICATE CONTROL SAMPLE REPORT
Special Services - LC Mass Spectrometry

Analyte	Concentration Spiked	Measured DCS1	Measured DCS2	AVG	Accuracy Average(%) DCS	Accuracy Limits	Precision (RPD) DCS Limit
Category: 8330-COE-A							
Matrix: AQUEOUS							
QC Lot: 19 SEP 94-7A							
Concentration Units: ug/L							
HMX	50	46.4	47.4	46.9	94	65-135	2.1 35.0
sym-Trinitrobenzene	50	51.3	52.3	51.8	104	65-135	1.9 35.0
RDX	50	42.9	44.0	43.4	87	65-135	2.5 35.0
1,3-Dinitrobenzene	50	46.5	47.6	47.0	94	65-135	2.3 35.0
Nitrobenzene	50	44.6	44.7	44.6	89	65-135	0.2 35.0
2,4,6-Trinitrotoluene	50	53.4	54.0	53.7	107	65-135	1.1 35.0
Tetryl	50	60.5	61.3	60.9	122	50-110	1.3 35.0
2,4-Dinitrotoluene	50	48.4	49.3	48.8	98	65-135	1.8 35.0
2,6-Dinitrotoluene	50	47.8	46.5	47.2	94	65-135	2.8 35.0
2-Am-DNT	50	48.2	47.1	47.6	95	65-135	2.3 35.0
4-Am-DNT	50	47.9	46.3	47.1	94	65-135	3.4 35.0
2-Nitrotoluene	50	46.9	48.3	47.6	95	65-135	2.9 35.0
4-Nitrotoluene	50	46.6	47.6	47.1	94	65-135	2.1 35.0
3-Nitrotoluene	50	48.8	51.0	49.9	100	65-135	4.4 35.0

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 01790002 (0.00,3.00,)
Lab ID: 077682-0003-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: 21 SEP 94

Received: 14 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Weight Units	Reporting Limit
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.76
Fluoranthene	ND	mg/kg	0.76
Fluorene	ND	mg/kg	0.76
Hexachlorobenzene	ND	mg/kg	0.76
Hexachlorobutadiene	ND	mg/kg	0.76
Hexachlorocyclopentadiene	ND	mg/kg	0.76
Hexachloroethane	ND	mg/kg	0.76
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.76
Isophorone	ND	mg/kg	0.76
2-Methylnaphthalene	ND	mg/kg	0.76
2-Methylphenol	ND	mg/kg	0.36
4-Methylphenol	ND	mg/kg	0.36
Naphthalene	ND	mg/kg	0.76
2-Nitroaniline	ND	mg/kg	3.6
3-Nitroaniline	ND	mg/kg	3.6
4-Nitroaniline	ND	mg/kg	3.6
Nitrobenzene	ND	mg/kg	0.76
2-Nitrophenol	ND	mg/kg	0.36
4-Nitrophenol	ND	mg/kg	1.7
N-Nitrosodiphenylamine	ND	mg/kg	0.76
N-Nitroso-di-n-propylamine	ND	mg/kg	0.76
Pentachlorophenol	ND	mg/kg	3.6
Phenanthrene	ND	mg/kg	0.76
Phenol	ND	mg/kg	0.36
Pyrene	ND	mg/kg	0.76
1,2,4-Trichlorobenzene	ND	mg/kg	0.76
2,4,5-Trichlorophenol	ND	mg/kg	3.6
2,4,6-Trichlorophenol	ND	mg/kg	0.36

Surrogate	Recovery	
Nitrobenzene-d5	85	%
2-Fluorobiphenyl	85	%
Terphenyl-d14	102	%
Phenol-d5	90	%
2-Fluorophenol	88	%
2,4,6-Tribromophenol	103	%

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Semivolatiles Library Search (20 Compound TID)

Quanterra Environmental Services

Method 8270

Client Name: Gram, Inc.
Client ID: 01790002 (0.00,3.00,)
Lab ID: 077682-0003-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: NA

Received: 14 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Units	Reporting Limit
Unknown oxygenated compound	230	ug/kg	--
Unknown oxygenated compound	2300	ug/kg	--
Unknown oxygenated compound	65000	ug/kg	--
Unknown oxygenated compound	1300	ug/kg	--
Unknown lactone	240	ug/kg	--
Unknown ketone	630	ug/kg	--
Unknown	430	ug/kg	--
Unknown oxygenated compound	440	ug/kg	--
Propanoic acid, 2-methyl-,1-(1,1-dimethylethyl)-!	220	ug/kg	--
Unknown	170	ug/kg	--
Unknown	320	ug/kg	--
Unknown	190	ug/kg	--
Unknown	220	ug/kg	--
Ergost-5-en-3-ol, (3.beta.)-	240	ug/kg	--
Unknown	220	ug/kg	--
Unknown	360	ug/kg	--
Unknown	150	ug/kg	--
TID Compound 18	ND	ug/kg	--
TID Compound 19	ND	ug/kg	--
TID Compound 20	ND	ug/kg	--

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

The cover letter is an integral part of this report.

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 01930001 (0.00,3.00,)
Lab ID: 077682-0005-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 08 SEP 94
Prepared: 21 SEP 94

Received: 14 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Weight Units	Reporting Limit
Acenaphthene	ND	mg/kg	0.76
Acenaphthylene	ND	mg/kg	0.76
Anthracene	ND	mg/kg	0.76
Benzo(a)anthracene	ND	mg/kg	0.76
Benzo(a)pyrene	ND	mg/kg	0.76
Benzo(b)fluoranthene	ND	mg/kg	0.76
Benzo(g,h,i)perylene	ND	mg/kg	0.76
Benzo(k)fluoranthene	ND	mg/kg	0.76
Benzoic acid	ND	mg/kg	1.7
Benzyl alcohol	ND	mg/kg	1.4
4-Bromophenyl phenyl ether	ND	mg/kg	0.76
Butyl benzyl phthalate	ND	mg/kg	0.76
4-Chloroaniline	ND	mg/kg	1.4
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.76
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.76
bis(2-Chloroethyl) ether	ND	mg/kg	0.76
4-Chloro-3-methylphenol	ND	mg/kg	1.4
2-Chloronaphthalene	ND	mg/kg	0.76
2-Chlorophenol	ND	mg/kg	0.36
4-Chlorophenyl phenyl ether	ND	mg/kg	0.76
Chrysene	ND	mg/kg	0.76
Di-n-butyl phthalate	ND	mg/kg	0.76
Dibenz(a,h)anthracene	ND	mg/kg	0.76
Dibenzofuran	ND	mg/kg	0.76
1,2-Dichlorobenzene	ND	mg/kg	0.76
1,3-Dichlorobenzene	ND	mg/kg	0.76
1,4-Dichlorobenzene	ND	mg/kg	0.76
3,3'-Dichlorobenzidine	ND	mg/kg	1.4
2,4-Dichlorophenol	ND	mg/kg	0.36
Diethyl phthalate	ND	mg/kg	0.76
2,4-Dimethylphenol	ND	mg/kg	0.36
Dimethyl phthalate	ND	mg/kg	0.76
4,6-Dinitro-2-methylphenol	ND	mg/kg	3.6
2,4-Dinitrophenol	ND	mg/kg	3.6
2,4-Dinitrotoluene	ND	mg/kg	0.76
2,6-Dinitrotoluene	ND	mg/kg	0.76
Di-n-octyl phthalate	ND	mg/kg	0.76

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins

Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 01930001 (0.00,3.00,)
Lab ID: 077682-0005-SA
Matrix: SOIL Sampled: 08 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 21 SEP 94 Analyzed: 28 SEP 94

Parameter	Result	Dry Weight Units	Reporting Limit
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.76
Fluoranthene	ND	mg/kg	0.76
Fluorene	ND	mg/kg	0.76
Hexachlorobenzene	ND	mg/kg	0.76
Hexachlorobutadiene	ND	mg/kg	0.76
Hexachlorocyclopentadiene	ND	mg/kg	0.76
Hexachloroethane	ND	mg/kg	0.76
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.76
Isophorone	ND	mg/kg	0.76
2-Methylnaphthalene	ND	mg/kg	0.76
2-Methylphenol	ND	mg/kg	0.36
4-Methylphenol	ND	mg/kg	0.36
Naphthalene	ND	mg/kg	0.76
2-Nitroaniline	ND	mg/kg	3.6
3-Nitroaniline	ND	mg/kg	3.6
4-Nitroaniline	ND	mg/kg	3.6
Nitrobenzene	ND	mg/kg	0.76
2-Nitrophenol	ND	mg/kg	0.36
4-Nitrophenol	ND	mg/kg	1.7
N-Nitrosodiphenylamine	ND	mg/kg	0.76
N-Nitroso-di-n-propylamine	ND	mg/kg	0.76
Pentachlorophenol	ND	mg/kg	3.6
Phenanthrene	ND	mg/kg	0.76
Phenol	ND	mg/kg	0.36
Pyrene	ND	mg/kg	0.76
1,2,4-Trichlorobenzene	ND	mg/kg	0.76
2,4,5-Trichlorophenol	ND	mg/kg	3.6
2,4,6-Trichlorophenol	ND	mg/kg	0.36

Surrogate	Recovery	
Nitrobenzene-d5	68	%
2-Fluorobiphenyl	76	%
Terphenyl-d14	96	%
Phenol-d5	78	%
2-Fluorophenol	74	%
2,4,6-Tribromophenol	99	%

Percent Moisture is 7%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Semivolatiles Library Search (20 Compound TID)

Quanterra Environmental Services

Method 8270

Client Name: Gram, Inc.
Client ID: 01790001 (0.00,3.00,)
Lab ID: 077682-0002-SA
Matrix: SOIL Sampled: 07 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: NA Analyzed: 28 SEP 94

Parameter	Result	Units	Reporting Limit
Unknown oxygenated compound	410	ug/kg	--
Unknown oxygenated compound	2200	ug/kg	--
Unknown oxygenated compound	61000	ug/kg	--
Unknown oxygenated compound	1100	ug/kg	--
Unknown lactone	330	ug/kg	--
Unknown ketone	490	ug/kg	--
Unknown oxygenated compound	270	ug/kg	--
Unknown oxygenated compound	290	ug/kg	--
Unknown oxygenated compound	160	ug/kg	--
Propanoic acid, 2-methyl-,1-(1,1-dimethylethyl)-!	250	ug/kg	--
Unknown	180	ug/kg	--
Unknown	270	ug/kg	--
Unknown	200	ug/kg	--
Unknown	260	ug/kg	--
Ergost-5-en-3-ol, (3.beta.)-	220	ug/kg	--
Unknown	210	ug/kg	--
Unknown	290	ug/kg	--
Unknown	160	ug/kg	--
TID Compound 19	ND	ug/kg	--
TID Compound 20	ND	ug/kg	--

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

T-341

Quanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 01790002 (0.00,3.00,)
Lab ID: 077682-0003-SA
Matrix: SOIL Sampled: 07 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 21 SEP 94 Analyzed: 28 SEP 94

Parameter	Result	Dry Weight Units	Reporting Limit
Acenaphthene	ND	mg/kg	0.76
Acenaphthylene	ND	mg/kg	0.76
Anthracene	ND	mg/kg	0.76
Benzo(a)anthracene	ND	mg/kg	0.76
Benzo(a)pyrene	ND	mg/kg	0.76
Benzo(b)fluoranthene	ND	mg/kg	0.76
Benzo(g,h,i)perylene	ND	mg/kg	0.76
Benzo(k)fluoranthene	ND	mg/kg	0.76
Benzoic acid	ND	mg/kg	1.7
Benzyl alcohol	ND	mg/kg	1.4
4-Bromophenyl phenyl ether	ND	mg/kg	0.76
Butyl benzyl phthalate	ND	mg/kg	0.76
4-Chloroaniline	ND	mg/kg	1.4
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.76
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.76
bis(2-Chloroethyl) ether	ND	mg/kg	0.76
4-Chloro-3-methylphenol	ND	mg/kg	1.4
2-Chloronaphthalene	ND	mg/kg	0.76
2-Chlorophenol	ND	mg/kg	0.36
4-Chlorophenyl phenyl ether	ND	mg/kg	0.76
Chrysene	ND	mg/kg	0.76
Di-n-butyl phthalate	ND	mg/kg	0.76
Dibenz(a,h)anthracene	ND	mg/kg	0.76
Dibenzofuran	ND	mg/kg	0.76
1,2-Dichlorobenzene	ND	mg/kg	0.76
1,3-Dichlorobenzene	ND	mg/kg	0.76
1,4-Dichlorobenzene	ND	mg/kg	0.76
3,3'-Dichlorobenzidine	ND	mg/kg	1.4
2,4-Dichlorophenol	ND	mg/kg	0.36
Diethyl phthalate	ND	mg/kg	0.76
2,4-Dimethylphenol	ND	mg/kg	0.36
Dimethyl phthalate	ND	mg/kg	0.76
4,6-Dinitro-2-methylphenol	ND	mg/kg	3.6
2,4-Dinitrophenol	ND	mg/kg	3.6
2,4-Dinitrotoluene	ND	mg/kg	0.76
2,6-Dinitrotoluene	ND	mg/kg	0.76
Di-n-octyl phthalate	ND	mg/kg	0.76

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ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

J-342

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 01790001 (0.00,3.00,)
Lab ID: 077682-0002-SA
Matrix: SOIL Sampled: 07 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 21 SEP 94 Analyzed: 28 SEP 94

Parameter	Result	Dry Weight Units	Reporting Limit
Acenaphthene	ND	mg/kg	0.76
Acenaphthylene	ND	mg/kg	0.76
Anthracene	ND	mg/kg	0.76
Benzo(a)anthracene	ND	mg/kg	0.76
Benzo(a)pyrene	ND	mg/kg	0.76
Benzo(b)fluoranthene	ND	mg/kg	0.76
Benzo(g,h,i)perylene	ND	mg/kg	0.76
Benzo(k)fluoranthene	ND	mg/kg	0.76
Benzoic acid	ND	mg/kg	1.7
Benzyl alcohol	ND	mg/kg	1.4
4-Bromophenyl phenyl ether	ND	mg/kg	0.76
Butyl benzyl phthalate	ND	mg/kg	0.76
4-Chloroaniline	ND	mg/kg	1.4
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.76
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.76
bis(2-Chloroethyl) ether	ND	mg/kg	0.76
4-Chloro-3-methylphenol	ND	mg/kg	1.4
2-Chloronaphthalene	ND	mg/kg	0.76
2-Chlorophenol	ND	mg/kg	0.36
4-Chlorophenyl phenyl ether	ND	mg/kg	0.76
Chrysene	ND	mg/kg	0.76
Di-n-butyl phthalate	ND	mg/kg	0.76
Dibenz(a,h)anthracene	ND	mg/kg	0.76
Dibenzofuran	ND	mg/kg	0.76
1,2-Dichlorobenzene	ND	mg/kg	0.76
1,3-Dichlorobenzene	ND	mg/kg	0.76
1,4-Dichlorobenzene	ND	mg/kg	0.76
3,3'-Dichlorobenzidine	ND	mg/kg	1.4
2,4-Dichlorophenol	ND	mg/kg	0.36
Diethyl phthalate	ND	mg/kg	0.76
2,4-Dimethylphenol	ND	mg/kg	0.36
Dimethyl phthalate	ND	mg/kg	0.76
4,6-Dinitro-2-methylphenol	ND	mg/kg	3.6
2,4-Dinitrophenol	ND	mg/kg	3.6
2,4-Dinitrotoluene	ND	mg/kg	0.76
2,6-Dinitrotoluene	ND	mg/kg	0.76
Di-n-octyl phthalate	ND	mg/kg	0.76

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 01790001 (0.00,3.00,)
Lab ID: 077682-0002-SA
Matrix: SOIL Sampled: 07 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 21 SEP 94 Analyzed: 28 SEP 94

Parameter	Result	Dry Weight Units	Reporting Limit
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.76
Fluoranthene	ND	mg/kg	0.76
Fluorene	ND	mg/kg	0.76
Hexachlorobenzene	ND	mg/kg	0.76
Hexachlorobutadiene	ND	mg/kg	0.76
Hexachlorocyclopentadiene	ND	mg/kg	0.76
Hexachloroethane	ND	mg/kg	0.76
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.76
Isophorone	ND	mg/kg	0.76
2-Methylnaphthalene	ND	mg/kg	0.76
2-Methylphenol	ND	mg/kg	0.36
4-Methylphenol	ND	mg/kg	0.36
Naphthalene	ND	mg/kg	0.76
2-Nitroaniline	ND	mg/kg	3.6
3-Nitroaniline	ND	mg/kg	3.6
4-Nitroaniline	ND	mg/kg	3.6
Nitrobenzene	ND	mg/kg	0.76
2-Nitrophenol	ND	mg/kg	0.36
4-Nitrophenol	ND	mg/kg	1.7
N-Nitrosodiphenylamine	ND	mg/kg	0.76
N-Nitroso-di-n-propylamine	ND	mg/kg	0.76
Pentachlorophenol	ND	mg/kg	3.6
Phenanthrene	ND	mg/kg	0.76
Phenol	ND	mg/kg	0.36
Pyrene	ND	mg/kg	0.76
1,2,4-Trichlorobenzene	ND	mg/kg	0.76
2,4,5-Trichlorophenol	ND	mg/kg	3.6
2,4,6-Trichlorophenol	ND	mg/kg	0.36

Surrogate	Recovery	
Nitrobenzene-d5	83	%
2-Fluorobiphenyl	82	%
Terphenyl-d14	98	%
Phenol-d5	88	%
2-Fluorophenol	85	%
2,4,6-Tribromophenol	97	%

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 00970001 (3.00,6.00,)
Lab ID: 077682-0006-SA
Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 21 SEP 94 Analyzed: 28 SEP 94

Parameter	Result	Dry Weight Units	Reporting Limit
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.80
Fluoranthene	ND	mg/kg	0.80
Fluorene	ND	mg/kg	0.80
Hexachlorobenzene	ND	mg/kg	0.80
Hexachlorobutadiene	ND	mg/kg	0.80
Hexachlorocyclopentadiene	ND	mg/kg	0.80
Hexachloroethane	ND	mg/kg	0.80
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.80
Isophorone	ND	mg/kg	0.80
2-Methylnaphthalene	ND	mg/kg	0.80
2-Methylphenol	ND	mg/kg	0.38
4-Methylphenol	ND	mg/kg	0.38
Naphthalene	ND	mg/kg	0.80
2-Nitroaniline	ND	mg/kg	3.8
3-Nitroaniline	ND	mg/kg	3.8
4-Nitroaniline	ND	mg/kg	3.8
Nitrobenzene	ND	mg/kg	0.80
2-Nitrophenol	ND	mg/kg	0.38
4-Nitrophenol	ND	mg/kg	1.8
N-Nitrosodiphenylamine	ND	mg/kg	0.80
N-Nitroso-di-n-propylamine	ND	mg/kg	0.80
Pentachlorophenol	ND	mg/kg	3.8
Phenanthrene	ND	mg/kg	0.80
Phenol	ND	mg/kg	0.38
Pyrene	ND	mg/kg	0.80
1,2,4-Trichlorobenzene	ND	mg/kg	0.80
2,4,5-Trichlorophenol	ND	mg/kg	3.8
2,4,6-Trichlorophenol	ND	mg/kg	0.38

Surrogate	Recovery	
Nitrobenzene-d5	82	%
2-Fluorobiphenyl	83	%
Terphenyl-d14	91	%
Phenol-d5	87	%
2-Fluorophenol	85	%
2,4,6-Tribromophenol	92	%

Percent Moisture is 13%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

Semivolatiles Library Search (20 Compound TID)

Method 8270

Client Name: Gram, Inc.
Client ID: 00970001 (3.00,6.00,)
Lab ID: 077682-0006-SA
Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: NA Analyzed: 28 SEP 94

Parameter	Result	Units	Reporting Limit
Unknown oxygenated compound	470	ug/kg	--
Unknown oxygenated compound	2400	ug/kg	--
Unknown oxygenated compound	58000	ug/kg	--
Unknown oxygenated compound	1200	ug/kg	--
Unknown lactone	180	ug/kg	--
Unknown ketone	230	ug/kg	--
Propanoic acid, 2-methyl-,1-(1,1-dimethylethyl)-!	210	ug/kg	--
Unknown	470	ug/kg	--
Unknown	980	ug/kg	--
Unknown	190	ug/kg	--
Unknown	170	ug/kg	--
Unknown	140	ug/kg	--
TID Compound 13	ND	ug/kg	--
TID Compound 14	ND	ug/kg	--
TID Compound 15	ND	ug/kg	--
TID Compound 16	ND	ug/kg	--
TID Compound 17	ND	ug/kg	--
TID Compound 18	ND	ug/kg	--
TID Compound 19	ND	ug/kg	--
TID Compound 20	ND	ug/kg	--

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Semivolatiles Library Search (20 Compound TID)

Method 8270

Client Name: Gram, Inc.
Client ID: 01930001 (0.00,3.00,)
Lab ID: 077682-0005-SA
Matrix: SOIL Sampled: 08 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: NA Analyzed: 28 SEP 94

Parameter	Result	Units	Reporting Limit
Unknown oxygenated compound	1500	ug/kg	--
Unknown oxygenated compound	50000	ug/kg	--
Unknown oxygenated compound	900	ug/kg	--
Unknown lactone	230	ug/kg	--
Unknown ketone	410	ug/kg	--
Unknown oxygenated compound	170	ug/kg	--
Unknown oxygenated compound	140	ug/kg	--
Propanoic acid, 2-methyl-,1-(1,1-dimethylethyl)-!	190	ug/kg	--
Unknown	330	ug/kg	--
Unknown	150	ug/kg	--
Unknown	140	ug/kg	--
Unknown	430	ug/kg	--
Unknown	330	ug/kg	--
Ergost-5-en-3-ol, (3.beta.)-	310	ug/kg	--
Unknown	280	ug/kg	--
Unknown	470	ug/kg	--
Unknown	210	ug/kg	--
TID Compound 18	ND	ug/kg	--
TID Compound 19	ND	ug/kg	--
TID Compound 20	ND	ug/kg	--

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

T-347

Quanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 00970001 (3.00,6.00,)
Lab ID: 077682-0006-SA
Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 21 SEP 94 Analyzed: 28 SEP 94

Parameter	Result	Dry Weight Units	Reporting Limit
Acenaphthene	ND	mg/kg	0.80
Acenaphthylene	ND	mg/kg	0.80
Anthracene	ND	mg/kg	0.80
Benzo(a)anthracene	ND	mg/kg	0.80
Benzo(a)pyrene	ND	mg/kg	0.80
Benzo(b)fluoranthene	ND	mg/kg	0.80
Benzo(g,h,i)perylene	ND	mg/kg	0.80
Benzo(k)fluoranthene	ND	mg/kg	0.80
Benzoic acid	ND	mg/kg	1.8
Benzyl alcohol	ND	mg/kg	1.5
4-Bromophenyl phenyl ether	ND	mg/kg	0.80
Butyl benzyl phthalate	ND	mg/kg	0.80
4-Chloroaniline	ND	mg/kg	1.5
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.80
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.80
bis(2-Chloroethyl) ether	ND	mg/kg	0.80
4-Chloro-3-methylphenol	ND	mg/kg	1.5
2-Chloronaphthalene	ND	mg/kg	0.80
2-Chlorophenol	ND	mg/kg	0.38
4-Chlorophenyl phenyl ether	ND	mg/kg	0.80
Chrysene	ND	mg/kg	0.80
Di-n-butyl phthalate	ND	mg/kg	0.80
Dibenz(a,h)anthracene	ND	mg/kg	0.80
Dibenzofuran	ND	mg/kg	0.80
1,2-Dichlorobenzene	ND	mg/kg	0.80
1,3-Dichlorobenzene	ND	mg/kg	0.80
1,4-Dichlorobenzene	ND	mg/kg	0.80
3,3'-Dichlorobenzidine	ND	mg/kg	1.5
2,4-Dichlorophenol	ND	mg/kg	0.38
Diethyl phthalate	ND	mg/kg	0.80
2,4-Dimethylphenol	ND	mg/kg	0.38
Dimethyl phthalate	ND	mg/kg	0.80
4,6-Dinitro-2-methylphenol	ND	mg/kg	3.8
2,4-Dinitrophenol	ND	mg/kg	3.8
2,4-Dinitrotoluene	ND	mg/kg	0.80
2,6-Dinitrotoluene	ND	mg/kg	0.80
Di-n-octyl phthalate	ND	mg/kg	0.80

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 02660001 (2.00,3.00,)
Lab ID: 077682-0008-SA
Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 21 SEP 94 Analyzed: 28 SEP 94

Parameter	Result	Dry Weight Units	Reporting Limit
Acenaphthene	ND	mg/kg	0.77
Acenaphthylene	ND	mg/kg	0.77
Anthracene	ND	mg/kg	0.77
Benzo(a)anthracene	ND	mg/kg	0.77
Benzo(a)pyrene	ND	mg/kg	0.77
Benzo(b)fluoranthene	ND	mg/kg	0.77
Benzo(g,h,i)perylene	ND	mg/kg	0.77
Benzo(k)fluoranthene	ND	mg/kg	0.77
Benzoic acid	ND	mg/kg	1.8
Benzyl alcohol	ND	mg/kg	1.4
4-Bromophenyl phenyl ether	ND	mg/kg	0.77
Butyl benzyl phthalate	ND	mg/kg	0.77
4-Chloroaniline	ND	mg/kg	1.4
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.77
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.77
bis(2-Chloroethyl) ether	ND	mg/kg	0.77
4-Chloro-3-methylphenol	ND	mg/kg	1.4
2-Chloronaphthalene	ND	mg/kg	0.77
2-Chlorophenol	ND	mg/kg	0.36
4-Chlorophenyl phenyl ether	ND	mg/kg	0.77
Chrysene	ND	mg/kg	0.77
Di-n-butyl phthalate	ND	mg/kg	0.77
Dibenz(a,h)anthracene	ND	mg/kg	0.77
Dibenzofuran	ND	mg/kg	0.77
1,2-Dichlorobenzene	ND	mg/kg	0.77
1,3-Dichlorobenzene	ND	mg/kg	0.77
1,4-Dichlorobenzene	ND	mg/kg	0.77
3,3'-Dichlorobenzidine	ND	mg/kg	1.4
2,4-Dichlorophenol	ND	mg/kg	0.36
Diethyl phthalate	0.80	mg/kg	0.77
2,4-Dimethylphenol	ND	mg/kg	0.36
Dimethyl phthalate	ND	mg/kg	0.77
4,6-Dinitro-2-methylphenol	ND	mg/kg	3.6
2,4-Dinitrophenol	ND	mg/kg	3.6
2,4-Dinitrotoluene	ND	mg/kg	0.77
2,6-Dinitrotoluene	ND	mg/kg	0.77
Di-n-octyl phthalate	ND	mg/kg	0.77

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
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Quanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 02660001 (2.00,3.00,)
Lab ID: 077682-0008-SA
Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 21 SEP 94 Analyzed: 28 SEP 94

Parameter	Result	Dry Weight Units	Reporting Limit
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.77
Fluoranthene	ND	mg/kg	0.77
Fluorene	ND	mg/kg	0.77
Hexachlorobenzene	ND	mg/kg	0.77
Hexachlorobutadiene	ND	mg/kg	0.77
Hexachlorocyclopentadiene	ND	mg/kg	0.77
Hexachloroethane	ND	mg/kg	0.77
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.77
Isophorone	ND	mg/kg	0.77
2-Methylnaphthalene	ND	mg/kg	0.77
2-Methylphenol	ND	mg/kg	0.36
4-Methylphenol	ND	mg/kg	0.36
Naphthalene	ND	mg/kg	0.77
2-Nitroaniline	ND	mg/kg	3.6
3-Nitroaniline	ND	mg/kg	3.6
4-Nitroaniline	ND	mg/kg	3.6
Nitrobenzene	ND	mg/kg	0.77
2-Nitrophenol	ND	mg/kg	0.36
4-Nitrophenol	ND	mg/kg	1.8
N-Nitrosodiphenylamine	ND	mg/kg	0.77
N-Nitroso-di-n-propylamine	ND	mg/kg	0.77
Pentachlorophenol	ND	mg/kg	3.6
Phenanthrene	ND	mg/kg	0.77
Phenol	ND	mg/kg	0.36
Pyrene	ND	mg/kg	0.77
1,2,4-Trichlorobenzene	ND	mg/kg	0.77
2,4,5-Trichlorophenol	ND	mg/kg	3.6
2,4,6-Trichlorophenol	ND	mg/kg	0.36

Surrogate	Recovery	
Nitrobenzene-d5	83	%
2-Fluorobiphenyl	83	%
Terphenyl-d14	97	%
Phenol-d5	88	%
2-Fluorophenol	87	%
2,4,6-Tribromophenol	103	%

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

Semivolatiles Library Search (20 Compound TID)

Method 8270

Client Name: Gram, Inc.
Client ID: 02660001 (2.00,3.00,)
Lab ID: 077682-0008-SA
Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: NA Analyzed: 28 SEP 94

Parameter	Result	Units	Reporting Limit
Unknown oxygenated compound	220000	ug/kg	--
Unknown oxygenated compound	2200	ug/kg	--
Unknown oxygenated compound	61000	ug/kg	--
Unknown oxygenated compound	1100	ug/kg	--
Unknown lactone	1300	ug/kg	--
Unknown ketone	1000	ug/kg	--
Unknown oxygenated compound	700	ug/kg	--
Unknown oxygenated compound	190	ug/kg	--
Unknown oxygenated compound	880	ug/kg	--
Unknown	470	ug/kg	--
Unknown	510	ug/kg	--
Unknown	140	ug/kg	--
Unknown	230	ug/kg	--
Unknown	180	ug/kg	--
TID Compound 15	ND	ug/kg	--
TID Compound 16	ND	ug/kg	--
TID Compound 17	ND	ug/kg	--
TID Compound 18	ND	ug/kg	--
TID Compound 19	ND	ug/kg	--
TID Compound 20	ND	ug/kg	--

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

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Rev 230787

Quanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 02960001 (2.50,4.00,)
Lab ID: 077682-0009-SA
Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 21 SEP 94 Analyzed: 28 SEP 94

Parameter	Result	Dry Weight Units	Reporting Limit
Acenaphthene	ND	mg/kg	0.72
Acenaphthylene	ND	mg/kg	0.72
Anthracene	ND	mg/kg	0.72
Benzo(a)anthracene	ND	mg/kg	0.72
Benzo(a)pyrene	ND	mg/kg	0.72
Benzo(b)fluoranthene	ND	mg/kg	0.72
Benzo(g,h,i)perylene	ND	mg/kg	0.72
Benzo(k)fluoranthene	ND	mg/kg	0.72
Benzoic acid	ND	mg/kg	1.7
Benzyl alcohol	ND	mg/kg	1.3
4-Bromophenyl phenyl ether	ND	mg/kg	0.72
Butyl benzyl phthalate	ND	mg/kg	0.72
4-Chloroaniline	ND	mg/kg	1.3
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.72
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.72
bis(2-Chloroethyl) ether	ND	mg/kg	0.72
4-Chloro-3-methylphenol	ND	mg/kg	1.3
2-Chloronaphthalene	ND	mg/kg	0.72
2-Chlorophenol	ND	mg/kg	0.34
4-Chlorophenyl phenyl ether	ND	mg/kg	0.72
Chrysene	ND	mg/kg	0.72
Di-n-butyl phthalate	ND	mg/kg	0.72
Dibenz(a,h)anthracene	ND	mg/kg	0.72
Dibenzofuran	ND	mg/kg	0.72
1,2-Dichlorobenzene	ND	mg/kg	0.72
1,3-Dichlorobenzene	ND	mg/kg	0.72
1,4-Dichlorobenzene	ND	mg/kg	0.72
3,3'-Dichlorobenzidine	ND	mg/kg	1.3
2,4-Dichlorophenol	ND	mg/kg	0.34
Diethyl phthalate	ND	mg/kg	0.72
2,4-Dimethylphenol	ND	mg/kg	0.34
Dimethyl phthalate	ND	mg/kg	0.72
4,6-Dinitro-2-methylphenol	ND	mg/kg	3.4
2,4-Dinitrophenol	ND	mg/kg	3.4
2,4-Dinitrotoluene	ND	mg/kg	0.72
2,6-Dinitrotoluene	ND	mg/kg	0.72
Di-n-octyl phthalate	ND	mg/kg	0.72

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ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

T-352

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 03140001 (0.00,0.00,)
Lab ID: 077682-0012-SA
Matrix: AQUEOUS Sampled: 13 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 20 SEP 94 Analyzed: 30 SEP 94

Parameter	Result	Units	Reporting Limit
Acenaphthene	ND	ug/L	10
Acenaphthylene	ND	ug/L	10
Anthracene	ND	ug/L	10
Benzo(a)anthracene	ND	ug/L	10
Benzo(a)pyrene	ND	ug/L	10
Benzo(b)fluoranthene	ND	ug/L	10
2,2'-Oxybis(1-chloropropane)	ND	ug/L	10
Benzo(g,h,i)perylene	ND	ug/L	10
Benzo(k)fluoranthene	ND	ug/L	10
Benzoic acid	ND	ug/L	50
Benzyl alcohol	ND	ug/L	20
4-Bromophenyl phenyl ether	ND	ug/L	10
Butyl benzyl phthalate	ND	ug/L	10
bis(2-Chloroethoxy)-methane	ND	ug/L	10
bis(2-Chloroethyl) ether	ND	ug/L	10
4-Chloro-3-methylphenol	ND	ug/L	20
2-Chloronaphthalene	ND	ug/L	10
2-Chlorophenol	ND	ug/L	10
4-Chlorophenyl phenyl ether	ND	ug/L	10
4-Chloroaniline	ND	ug/L	20
Chrysene	ND	ug/L	10
Di-n-butyl phthalate	ND	ug/L	10
Dibenz(a,h)anthracene	ND	ug/L	10
Dibenzofuran	ND	ug/L	10
1,2-Dichlorobenzene	ND	ug/L	10
1,3-Dichlorobenzene	ND	ug/L	10
1,4-Dichlorobenzene	ND	ug/L	10
3,3'-Dichlorobenzidine	ND	ug/L	20
2,4-Dichlorophenol	ND	ug/L	10
Diethyl phthalate	ND	ug/L	10
2,4-Dimethylphenol	ND	ug/L	10
Dimethyl phthalate	ND	ug/L	10
4,6-Dinitro-2-methylphenol	ND	ug/L	50
2,4-Dinitrophenol	ND	ug/L	50
2,4-Dinitrotoluene	ND	ug/L	10
2,6-Dinitrotoluene	ND	ug/L	10
Di-n-octyl phthalate	ND	ug/L	10

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ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
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Quanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 03140001 (0.00,0.00,)
Lab ID: 077682-0012-SA
Matrix: AQUEOUS Sampled: 13 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 20 SEP 94 Analyzed: 30 SEP 94

Parameter	Result	Units	Reporting Limit	
bis(2-Ethylhexyl)-phthalate	ND	ug/L	10	
Fluoranthene	ND	ug/L	10	
Fluorene	ND	ug/L	10	
Hexachlorobenzene	ND	ug/L	10	
Hexachlorobutadiene	ND	ug/L	10	
Hexachlorocyclopentadiene	ND	ug/L	10	
Hexachloroethane	ND	ug/L	10	
Indeno(1,2,3-cd)pyrene	ND	ug/L	10	
Isophorone	ND	ug/L	10	
2-Methylnaphthalene	ND	ug/L	10	
2-Methylphenol	ND	ug/L	10	
4-Methylphenol	ND	ug/L	10	
Naphthalene	ND	ug/L	10	
2-Nitroaniline	ND	ug/L	50	
3-Nitroaniline	ND	ug/L	50	
4-Nitroaniline	ND	ug/L	50	
Nitrobenzene	ND	ug/L	10	
2-Nitrophenol	ND	ug/L	10	
4-Nitrophenol	ND	ug/L	50	
N-Nitrosodiphenylamine	ND	ug/L	10	
N-Nitroso-di-n-propylamine	ND	ug/L	10	
Pentachlorophenol	3.4	ug/L	50	J
Phenanthrene	ND	ug/L	10	
Phenol	ND	ug/L	10	
Pyrene	ND	ug/L	10	
1,2,4-Trichlorobenzene	ND	ug/L	10	
2,4,5-Trichlorophenol	ND	ug/L	50	
2,4,6-Trichlorophenol	ND	ug/L	10	

Surrogate	Recovery	
Nitrobenzene-d5	85	%
2-Fluorobiphenyl	78	%
Terphenyl-d14	33	%
Phenol-d5	31	%
2-Fluorophenol	51	%
2,4,6-Tribromophenol	60	%

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ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 02960001 (2.50,4.00,)
Lab ID: 077682-0009-SA
Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 21 SEP 94 Analyzed: 28 SEP 94

Parameter	Result	Dry Weight Units	Reporting Limit
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.72
Fluoranthene	ND	mg/kg	0.72
Fluorene	ND	mg/kg	0.72
Hexachlorobenzene	ND	mg/kg	0.72
Hexachlorobutadiene	ND	mg/kg	0.72
Hexachlorocyclopentadiene	ND	mg/kg	0.72
Hexachloroethane	ND	mg/kg	0.72
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.72
Isophorone	ND	mg/kg	0.72
2-Methylnaphthalene	ND	mg/kg	0.72
2-Methylphenol	ND	mg/kg	0.34
4-Methylphenol	ND	mg/kg	0.34
Naphthalene	ND	mg/kg	0.72
2-Nitroaniline	ND	mg/kg	3.4
3-Nitroaniline	ND	mg/kg	3.4
4-Nitroaniline	ND	mg/kg	3.4
Nitrobenzene	ND	mg/kg	0.72
2-Nitrophenol	ND	mg/kg	0.34
4-Nitrophenol	ND	mg/kg	1.7
N-Nitrosodiphenylamine	ND	mg/kg	0.72
N-Nitroso-di-n-propylamine	ND	mg/kg	0.72
Pentachlorophenol	ND	mg/kg	3.4
Phenanthrene	ND	mg/kg	0.72
Phenol	ND	mg/kg	0.34
Pyrene	ND	mg/kg	0.72
1,2,4-Trichlorobenzene	ND	mg/kg	0.72
2,4,5-Trichlorophenol	ND	mg/kg	3.4
2,4,6-Trichlorophenol	ND	mg/kg	0.34

Surrogate	Recovery		
Nitrobenzene-d5	95	%	
2-Fluorobiphenyl	93	%	
Terphenyl-d14	113	%	
Phenol-d5	102	%	
2-Fluorophenol	96	%	
2,4,6-Tribromophenol	123	%	&

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ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

Semivolatiles Library Search (20 Compound TID)

Method 8270

Client Name: Gram, Inc.
Client ID: 02960001 (2.50,4.00,)
Lab ID: 077682-0009-SA
Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: NA Analyzed: 28 SEP 94

Parameter	Result	Units	Reporting Limit
Unknown oxygenated compound	1700	ug/kg	--
Unknown oxygenated compound	52000	ug/kg	--
Unknown oxygenated compound	890	ug/kg	--
Unknown lactone	530	ug/kg	--
Unknown ketone	1100	ug/kg	--
Unknown oxygenated compound	530	ug/kg	--
Unknown oxygenated compound	320	ug/kg	--
Unknown	240	ug/kg	--
Unknown	770	ug/kg	--
Unknown	1100	ug/kg	--
Propanoic acid, 2-methyl-,1-(1,1-dimethylethyl)-!	250	ug/kg	--
Unknown	230	ug/kg	--
Unknown	230	ug/kg	--
Unknown	530	ug/kg	--
Unknown	360	ug/kg	--
Unknown	470	ug/kg	--
Unknown	830	ug/kg	--
Unknown	230	ug/kg	--
Unknown	360	ug/kg	--
Unknown	230	ug/kg	--

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 03140001 (0.00,0.00,)
Lab ID: 077682-0012-SA
Matrix: AQUEOUS Sampled: 13 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: 20 SEP 94 Analyzed: 30 SEP 94

Note J : Result is detected below the reporting limit or
is an estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

I-357

Quanterra Environmental Services

Semivolatiles Library Search (20 Compound ID)

Method 8270

Client Name: Gram, Inc.
Client ID: 03140001 (0.00,0.00,)
Lab ID: 077682-0012-SA
Matrix: AQUEOUS Sampled: 13 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: NA Analyzed: 30 SEP 94

Parameter	Result	Units	Reporting Limit
TID Compound 1	ND	ug/L	--
TID Compound 2	ND	ug/L	--
TID Compound 3	ND	ug/L	--
TID Compound 4	ND	ug/L	--
TID Compound 5	ND	ug/L	--
TID Compound 6	ND	ug/L	--
TID Compound 7	ND	ug/L	--
TID Compound 8	ND	ug/L	--
TID Compound 9	ND	ug/L	--
TID Compound 10	ND	ug/L	--
TID Compound 11	ND	ug/L	--
TID Compound 12	ND	ug/L	--
TID Compound 13	ND	ug/L	--
TID Compound 14	ND	ug/L	--
TID Compound 15	ND	ug/L	--
TID Compound 16	ND	ug/L	--
TID Compound 17	ND	ug/L	--
TID Compound 18	ND	ug/L	--
TID Compound 19	ND	ug/L	--
TID Compound 20	ND	ug/L	--

ND = Not detected
NA = Not applicable

Reported By: Chris Jenkins Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077682-0002-SA	SOIL	8270-IRPSL	21 SEP 94-11A	21 SEP 94-11A
077682-0003-SA	SOIL	8270-IRPSL	21 SEP 94-11A	21 SEP 94-11A
077682-0005-SA	SOIL	8270-IRPSL	21 SEP 94-11A	21 SEP 94-11A
077682-0006-SA	SOIL	8270-IRPSL	21 SEP 94-11A	21 SEP 94-11A
077682-0008-SA	SOIL	8270-IRPSL	21 SEP 94-11A	21 SEP 94-11A
077682-0009-SA	SOIL	8270-IRPSL	21 SEP 94-11A	21 SEP 94-11A
077682-0012-SA	AQUEOUS	8270-IRP-A	20 SEP 94-11A	20 SEP 94-11A

Quanterra
Environmental Services

METHOD BLANK REPORT
Semivolatile Organics by GC/MS

Test: 8270-IRPMS-L-S
Matrix: SOIL
QC Lot: 21 SEP 94-11A QC Run: 21 SEP 94-11A

Analyte	Result	Units	Reporting Limit
Acenaphthene	ND	mg/kg	0.70
Acenaphthylene	ND	mg/kg	0.70
Anthracene	ND	mg/kg	0.70
Benzo(a)anthracene	ND	mg/kg	0.70
Benzo(a)pyrene	ND	mg/kg	0.70
Benzo(b)fluoranthene	ND	mg/kg	0.70
Benzo(g,h,i)perylene	ND	mg/kg	0.70
Benzo(k)fluoranthene	ND	mg/kg	0.70
Benzoic acid	ND	mg/kg	1.6
Benzyl alcohol	ND	mg/kg	1.3
4-Bromophenyl phenyl ether	ND	mg/kg	0.70
Butyl benzyl phthalate	ND	mg/kg	0.70
4-Chloroaniline	ND	mg/kg	1.3
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.70
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.70
bis(2-Chloroethyl) ether	ND	mg/kg	0.70
4-Chloro-3-methylphenol	ND	mg/kg	1.3
2-Chloronaphthalene	ND	mg/kg	0.70
2-Chlorophenol	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.70
Chrysene	ND	mg/kg	0.70
Di-n-butyl phthalate	ND	mg/kg	0.70
Dibenz(a,h)anthracene	ND	mg/kg	0.70
Dibenzofuran	ND	mg/kg	0.70
1,2-Dichlorobenzene	ND	mg/kg	0.70
1,3-Dichlorobenzene	ND	mg/kg	0.70
1,4-Dichlorobenzene	ND	mg/kg	0.70
3,3'-Dichlorobenzidine	ND	mg/kg	1.3
2,4-Dichlorophenol	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.70
2,4-Dimethylphenol	ND	mg/kg	0.33
Dimethyl phthalate	ND	mg/kg	0.70
4,6-Dinitro-2-methylphenol	ND	mg/kg	3.3
2,4-Dinitrophenol	ND	mg/kg	3.3
2,4-Dinitrotoluene	ND	mg/kg	0.70
2,6-Dinitrotoluene	ND	mg/kg	0.70
Di-n-octyl phthalate	ND	mg/kg	0.70

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8270-IRPMS-L-S			
Matrix: SOIL			
QC Lot: 21 SEP 94-11A QC Run: 21 SEP 94-11A			
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.70
Fluoranthene	ND	mg/kg	0.70
Fluorene	ND	mg/kg	0.70
Hexachlorobenzene	ND	mg/kg	0.70
Hexachlorobutadiene	ND	mg/kg	0.70
Hexachlorocyclopentadiene	ND	mg/kg	0.70
Hexachloroethane	ND	mg/kg	0.70
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.70
Isophorone	ND	mg/kg	0.70
2-Methylnaphthalene	ND	mg/kg	0.70
2-Methylphenol	ND	mg/kg	0.33
4-Methylphenol	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.70
2-Nitroaniline	ND	mg/kg	3.3
3-Nitroaniline	ND	mg/kg	3.3
4-Nitroaniline	ND	mg/kg	3.3
Nitrobenzene	ND	mg/kg	0.70
2-Nitrophenol	ND	mg/kg	0.33
4-Nitrophenol	ND	mg/kg	1.6
N-Nitrosodiphenylamine	ND	mg/kg	0.70
N-Nitroso-di-n-propylamine	ND	mg/kg	0.70
Pentachlorophenol	ND	mg/kg	3.3
Phenanthrene	ND	mg/kg	0.70
Phenol	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.70
1,2,4-Trichlorobenzene	ND	mg/kg	0.70
2,4,5-Trichlorophenol	ND	mg/kg	3.3
2,4,6-Trichlorophenol	ND	mg/kg	0.33
Test: 8270-IRPMS-A			
Matrix: AQUEOUS			
QC Lot: 20 SEP 94-11A QC Run: 20 SEP 94-11A			
Acenaphthene	ND	ug/L	10
Acenaphthylene	ND	ug/L	10
Anthracene	ND	ug/L	10
Benzo(a)anthracene	ND	ug/L	10
Benzo(a)pyrene	ND	ug/L	10

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METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)

Test: 8270-IRPMS-A
Matrix: AQUEOUS
QC Lot: 20 SEP 94-11A QC Run: 20 SEP 94-11A

Analyte	Result	Units	Reporting Limit
Benzo(b)fluoranthene	ND	ug/L	10
2,2'-Oxybis(1-chloropropane)	ND	ug/L	10
Benzo(g,h,i)perylene	ND	ug/L	10
Benzo(k)fluoranthene	ND	ug/L	10
Benzoic acid	ND	ug/L	50
Benzyl alcohol	ND	ug/L	20
4-Bromophenyl phenyl ether	ND	ug/L	10
Butyl benzyl phthalate	ND	ug/L	10
bis(2-Chloroethoxy)-methane	ND	ug/L	10
bis(2-Chloroethyl) ether	ND	ug/L	10
4-Chloro-3-methylphenol	ND	ug/L	20
2-Chloronaphthalene	ND	ug/L	10
2-Chlorophenol	ND	ug/L	10
4-Chloroaniline	ND	ug/L	20
4-Chlorophenyl phenyl ether	ND	ug/L	10
Chrysene	ND	ug/L	10
Di-n-butyl phthalate	ND	ug/L	10
Dibenz(a,h)anthracene	ND	ug/L	10
Dibenzofuran	ND	ug/L	10
1,2-Dichlorobenzene	ND	ug/L	10
1,3-Dichlorobenzene	ND	ug/L	10
1,4-Dichlorobenzene	ND	ug/L	10
3,3'-Dichlorobenzidine	ND	ug/L	20
2,4-Dichlorophenol	ND	ug/L	10
Diethyl phthalate	ND	ug/L	10
2,4-Dimethylphenol	ND	ug/L	10
Dimethyl phthalate	ND	ug/L	10
4,6-Dinitro-2-methylphenol	ND	ug/L	50
2,4-Dinitrophenol	ND	ug/L	50
2,4-Dinitrotoluene	ND	ug/L	10
2,6-Dinitrotoluene	ND	ug/L	10
Di-n-octyl phthalate	ND	ug/L	10
bis(2-Ethylhexyl)-phthalate	ND	ug/L	10
Fluoranthene	ND	ug/L	10
Fluorene	ND	ug/L	10
Hexachlorobenzene	ND	ug/L	10

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)

Test: 8270-IRPMS-A
Matrix: AQUEOUS
QC Lot: 20 SEP 94-11A QC Run: 20 SEP 94-11A

Analyte	Result	Units	Reporting Limit
Hexachlorobutadiene	ND	ug/L	10
Hexachlorocyclopentadiene	ND	ug/L	10
Hexachloroethane	ND	ug/L	10
Indeno(1,2,3-cd)pyrene	ND	ug/L	10
Isophorone	ND	ug/L	10
2-Methylnaphthalene	ND	ug/L	10
2-Methylphenol	ND	ug/L	10
4-Methylphenol	ND	ug/L	10
Naphthalene	ND	ug/L	10
2-Nitroaniline	ND	ug/L	50
3-Nitroaniline	ND	ug/L	50
4-Nitroaniline	ND	ug/L	50
Nitrobenzene	ND	ug/L	10
2-Nitrophenol	ND	ug/L	10
4-Nitrophenol	ND	ug/L	50
N-Nitrosodiphenylamine	ND	ug/L	10
N-Nitroso-di-n-propylamine	ND	ug/L	10
Pentachlorophenol	ND	ug/L	50
Phenanthrene	ND	ug/L	10
Phenol	ND	ug/L	10
Pyrene	ND	ug/L	10
1,2,4-Trichlorobenzene	ND	ug/L	10
2,4,5-Trichlorophenol	ND	ug/L	50
2,4,6-Trichlorophenol	ND	ug/L	10

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Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 077682

Category: 8270-IRP-A Semivolatile Organics
(Contain all compounds for IRPMS)
Matrix: AQUEOUS
QC Lot: 20 SEP 94-11A QC Run: 20 SEP 94-11A
Concentration Units: ug/L

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Phenol	200	80.2	40	22-51
bis(2-Chloroethyl) ether	100	101	101	35-110
2-Chlorophenol	200	171	86	44-112
1,3-Dichlorobenzene	100	89.5	90	6-86
1,4-Dichlorobenzene	100	93.7	94	11-87
Benzyl alcohol	100	84.6	85	36-101
1,2-Dichlorobenzene	100	94.4	94	14-90
2-Methylphenol	200	161	80	40-117
2,2'-Oxybis(1-chloropropane)	100	101	101	33-113
4-Methylphenol	200	157	78	36-109
N-Nitroso-di-n-propylamine	100	93.9	94	37-114
Hexachloroethane	100	96.5	96	0-84
Nitrobenzene	100	108	108	32-114
Isophorone	100	82.5	82	40-119
2-Nitrophenol	200	171	86	40-130
2,4-Dimethylphenol	200	161	80	44-122
Benzoic acid	200	ND	NC	0-72
bis(2-Chloroethoxy)-methane	100	101	101	36-118
2,4-Dichlorophenol	200	158	79	40-125
1,2,4-Trichlorobenzene	100	82.1	82	10-98
Naphthalene	100	86.6	87	28-105
4-Chloroaniline	100	45.5	46	40-114
Hexachlorobutadiene	100	68.3	68	0-94
4-Chloro-3-methylphenol	200	177	88	22-147
2-Methylnaphthalene	100	76.1	76	22-119
Hexachlorocyclopentadiene	100	50.1	50	0-93
2,4,6-Trichlorophenol	200	134	67	44-127
2,4,5-Trichlorophenol	200	121	60	46-132
2-Chloronaphthalene	100	82.3	82	25-120
2-Nitroaniline	100	120	120	19-68
Dimethyl phthalate	100	89.7	90	0-88
Acenaphthylene	100	91.9	92	31-117
2,6-Dinitrotoluene	100	106	106	52-120
3-Nitroaniline	100	102	102	34-153
Acenaphthene	100	89.1	89	47-145
2,4-Dinitrophenol	200	133	66	17-160
4-Nitrophenol	200	102	51	16-56

N = Not Calculated, calculation not applicable.
N = Not Detected
ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 077682

Category: 8270-IRPSL Semivolatile Organics
(Contain all compounds for IRPMS Low soil)
Matrix: SOIL
QC Lot: 21 SEP 94-11A QC Run: 21 SEP 94-11A
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
Phenol	6.70	4.95	74	41-123
bis(2-Chloroethyl) ether	3.30	2.63	80	43-117
2-Chlorophenol	6.70	5.00	75	44-116
1,3-Dichlorobenzene	3.30	2.62	79	39-106
1,4-Dichlorobenzene	3.30	2.61	79	40-106
Benzyl alcohol	3.30	2.88	87	37-125
1,2-Dichlorobenzene	3.30	2.69	82	40-107
2-Methylphenol	6.70	5.01	75	44-128
2,2'-Oxybis(1-chloropropane)	3.30	2.71	82	38-116
4-Methylphenol	6.70	5.55	83	36-138
N-Nitroso-di-n-propylamine	3.30	2.92	88	43-123
Hexachloroethane	3.30	2.67	81	39-106
Nitrobenzene	3.30	2.83	86	35-180
Isophorone	3.30	2.30	70	20-134
2-Nitrophenol	6.70	5.00	75	40-128
2,4-Dimethylphenol	6.70	5.01	75	38-127
Benzoic acid	6.70	ND	NC	1-137
bis(2-Chloroethoxy)-methane	3.30	2.67	81	40-117
2,4-Dichlorophenol	6.70	4.74	71	34-129
1,2,4-Trichlorobenzene	3.30	2.54	77	36-114
Naphthalene	3.30	2.33	71	41-108
4-Chloroaniline	3.30	1.13	34	0-63
Hexachlorobutadiene	3.30	2.63	80	33-114
4-Chloro-3-methylphenol	6.70	5.96	89	33-143
2-Methylnaphthalene	3.30	2.44	74	0-197
Hexachlorocyclopentadiene	3.30	2.30	70	29-111
2,4,6-Trichlorophenol	6.70	5.21	78	41-132
2,4,5-Trichlorophenol	6.70	5.38	80	36-129
2-Chloronaphthalene	3.30	2.61	79	40-119
2-Nitroaniline	3.30	3.26	99	45-129
Dimethyl phthalate	3.30	2.80	85	48-116
Acenaphthylene	3.30	2.45	74	43-114
2,6-Dinitrotoluene	3.30	3.17	96	44-127
3-Nitroaniline	3.30	5.93	180	0-119
Acenaphthene	3.30	2.42	73	41-113
2,4-Dinitrophenol	6.70	6.60	99	0-139
4-Nitrophenol	6.70	8.08	121	41-144

N = Not Calculated, calculation not applicable.
N = Not Detected
ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 077682

Category: 8270-IRP-A Semivolatile Organics (cont.)
(Contain all compounds for IRPMS)
Matrix: AQUEOUS
QC Lot: 20 SEP 94-11A QC Run: 20 SEP 94-11A
Concentration Units: ug/L

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits (cont.)
Dibenzofuran	100	87.8	88	43-116
2,4-Dinitrotoluene	100	103	103	58-121
Diethyl phthalate	100	96.5	96	0-112
4-Chlorophenyl phenyl ether	100	75.7	76	45-116
Fluorene	100	84.8	85	59-121
4-Nitroaniline	100	93.0	93	52-134
4,6-Dinitro-2-methylphenol	200	195	98	45-149
N-Nitrosodiphenylamine	100	100	100	23-243
4-Bromophenyl phenyl ether	100	72.1	72	46-127
Hexachlorobenzene	100	67.3	67	54-126
Pentachlorophenol	200	146	73	44-142
Phenanthrene	100	92.1	92	57-123
Anthracene	100	88.8	89	59-125
Di-n-butyl phthalate	100	111	111	53-127
Fluoranthene	100	90.8	91	57-129
Pyrene	100	95.7	96	60-130
Butyl benzyl phthalate	100	129	129	52-125
3,3'-Dichlorobenzidine	100	106	106	42-146
Benzo(a)anthracene	100	94.2	94	59-126
Chrysene	100	94.9	95	59-127
bis(2-Ethylhexyl)-phthalate	100	133	133	57-129
Di-n-octyl phthalate	100	121	121	50-135
Benzo(b)fluoranthene	100	66.9	67	55-129
Benzo(k)fluoranthene	100	74.8	75	55-134
Benzo(a)pyrene	100	85.8	86	55-130
Indeno(1,2,3-cd)pyrene	100	82.6	83	64-118
Dibenz(a,h)anthracene	100	89.1	89	59-121
Benzo(g,h,i)perylene	100	84.7	85	62-117

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 077682

Category: 8270-IRPSL Semivolatile Organics (cont.)
(Contain all compounds for IRPMS Low soil)
Matrix: SOIL
QC Lot: 21 SEP 94-11A QC Run: 21 SEP 94-11A
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits (cont.)
Dibenzofuran	3.30	2.61	79	42-116
2,4-Dinitrotoluene	3.30	3.39	103	43-129
Diethyl phthalate	3.30	2.91	88	46-118
Fluorene	3.30	2.59	78	43-117
4-Chlorophenyl phenyl ether	3.30	2.60	79	41-120
4-Nitroaniline	3.30	4.65	141	0-189
4,6-Dinitro-2-methylphenol	6.70	6.87	103	0-181
N-Nitrosodiphenylamine	3.30	2.79	85	9-241
4-Bromophenyl phenyl ether	3.30	2.69	82	41-126
Hexachlorobenzene	3.30	2.71	82	40-126
Pentachlorophenol	6.70	6.42	96	29-137
Phenanthrene	3.30	2.49	75	54-120
Anthracene	3.30	2.36	72	46-119
Di-n-butyl phthalate	3.30	2.85	86	44-130
Fluoranthene	3.30	2.47	75	44-126
Pyrene	3.30	2.56	78	52-115
Butyl benzyl phthalate	3.30	3.18	96	50-131
3,3'-Dichlorobenzidine	3.30	2.59	78	7-141
Benzo(a)anthracene	3.30	2.57	78	48-127
Chrysene	3.30	2.48	75	49-123
bis(2-Ethylhexyl)-phthalate	3.30	2.80	85	48-130
Di-n-octyl phthalate	3.30	2.58	78	44-137
Benzo(b)fluoranthene	3.30	2.85	86	44-136
Benzo(k)fluoranthene	3.30	1.99	60	43-127
Benzo(a)pyrene	3.30	2.37	72	46-132
Indeno(1,2,3-cd)pyrene	3.30	2.54	77	47-133
Dibenz(a,h)anthracene	3.30	2.42	73	47-129
Benzo(g,h,i)perylene	3.30	2.54	77	40-133

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS

Analyte	Concentration Spiked	Measured	Accuracy(%) SCS	Limits
Category: 8270-IRPSL				
Matrix: SOIL				
QC Lot: 21 SEP 94-11A QC Run: 21 SEP 94-11A				
Concentration Units: mg/kg				
Nitrobenzene-d5	0.33	0.32	98	38-116
2-Fluorobiphenyl	0.33	0.33	100	42-120
Terphenyl-d14	0.33	0.39	118	40-141
Phenol-d5	0.67	0.67	100	32-131
2-Fluorophenol	0.67	0.67	100	23-184
2,4,6-Tribromophenol	0.67	0.66	98	20-109
Category: 8270-IRP-A				
Matrix: AQUEOUS				
QC Lot: 20 SEP 94-11A QC Run: 20 SEP 94-11A				
Concentration Units: ug/L				
Nitrobenzene-d5	100	81	81	18-105
2-Fluorobiphenyl	100	88	88	21-114
Terphenyl-d14	100	79	79	45-143
Phenol-d5	200	72	36	10- 47
2-Fluorophenol	200	127	64	19- 85
2,4,6-Tribromophenol	200	128	64	22-117

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 01790002 (0.00,3.00,)
Lab ID: 077682-0003-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	9090	mg/kg	54.1	6010	22 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	16.2	6010	22 SEP 94	28 SEP 94	
Arsenic	2.6	mg/kg	0.50	7060	22 SEP 94	23 SEP 94	
Barium	107	mg/kg	10.8	6010	22 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	22 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.54	6010	22 SEP 94	28 SEP 94	
Calcium	27000	mg/kg	108	6010	22 SEP 94	28 SEP 94	
Chromium	7.9	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	
Copper	6.5	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	
Iron	8580	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	B
Lead	6.3	mg/kg	1.0	7421	22 SEP 94	23 SEP 94	1
Magnesium	2750	mg/kg	108	6010	22 SEP 94	28 SEP 94	
Manganese	126	mg/kg	2.2	6010	22 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	20 SEP 94	20 SEP 94	
Molybdenum	ND	mg/kg	10.8	6010	22 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	16.2	6010	22 SEP 94	28 SEP 94	
Potassium	1700	mg/kg	541	6010	22 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	0.50	7740	22 SEP 94	23 SEP 94	
Silver	ND	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	541	6010	22 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	22 SEP 94	23 SEP 94	
Vanadium	15.2	mg/kg	10.8	6010	22 SEP 94	28 SEP 94	
Zinc	21.6	mg/kg	2.2	6010	22 SEP 94	28 SEP 94	

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 01800001 (0.00,3.00,)
Lab ID: 077682-0004-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	8740	mg/kg	53.3	6010	22 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	16.0	6010	22 SEP 94	28 SEP 94	
Arsenic	2.9	mg/kg	0.50	7060	22 SEP 94	23 SEP 94	
Barium	98.7	mg/kg	10.7	6010	22 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	22 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.53	6010	22 SEP 94	28 SEP 94	
Calcium	39800	mg/kg	107	6010	22 SEP 94	28 SEP 94	
Chromium	6.7	mg/kg	5.3	6010	22 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.3	6010	22 SEP 94	28 SEP 94	
Copper	ND	mg/kg	5.3	6010	22 SEP 94	28 SEP 94	
Iron	7220	mg/kg	5.3	6010	22 SEP 94	28 SEP 94	B
Lead	4.1	mg/kg	1.0	7421	22 SEP 94	23 SEP 94	1
Magnesium	2460	mg/kg	107	6010	22 SEP 94	28 SEP 94	
Manganese	77.5	mg/kg	2.1	6010	22 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	20 SEP 94	20 SEP 94	
Molybdenum	ND	mg/kg	10.7	6010	22 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	16.0	6010	22 SEP 94	28 SEP 94	
Potassium	1250	mg/kg	533	6010	22 SEP 94	28 SEP 94	
Selenium	0.51	mg/kg	0.50	7740	22 SEP 94	23 SEP 94	
Silver	ND	mg/kg	5.3	6010	22 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	533	6010	22 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	22 SEP 94	23 SEP 94	
Vanadium	15.5	mg/kg	10.7	6010	22 SEP 94	28 SEP 94	
Zinc	16.6	mg/kg	2.1	6010	22 SEP 94	28 SEP 94	

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 01780001 (0.00,3.00,)
Lab ID: 077682-0001-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	7500	mg/kg	55.1	6010	22 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	16.5	6010	22 SEP 94	28 SEP 94	
Arsenic	3.3	mg/kg	0.50	7060	22 SEP 94	23 SEP 94	
Barium	130	mg/kg	11.0	6010	22 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	22 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.55	6010	22 SEP 94	28 SEP 94	
Calcium	69000	mg/kg	110	6010	22 SEP 94	28 SEP 94	
Chromium	6.3	mg/kg	5.5	6010	22 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.5	6010	22 SEP 94	28 SEP 94	
Copper	ND	mg/kg	5.5	6010	22 SEP 94	28 SEP 94	
Iron	6590	mg/kg	5.5	6010	22 SEP 94	28 SEP 94	B
Lead	4.7	mg/kg	1.0	7421	22 SEP 94	23 SEP 94	1
Magnesium	2950	mg/kg	110	6010	22 SEP 94	28 SEP 94	
Manganese	81.9	mg/kg	2.2	6010	22 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	20 SEP 94	20 SEP 94	
Molybdenum	ND	mg/kg	11.0	6010	22 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	16.5	6010	22 SEP 94	28 SEP 94	
Potassium	1000	mg/kg	551	6010	22 SEP 94	28 SEP 94	
Selenium	0.70	mg/kg	0.50	7740	22 SEP 94	23 SEP 94	
Silver	ND	mg/kg	5.5	6010	22 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	551	6010	22 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	22 SEP 94	23 SEP 94	
Vanadium	16.0	mg/kg	11.0	6010	22 SEP 94	28 SEP 94	
Zinc	15.5	mg/kg	2.2	6010	22 SEP 94	28 SEP 94	

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 01790001 (0.00,3.00,)
Lab ID: 077682-0002-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	10700	mg/kg	54.6	6010	22 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	16.4	6010	22 SEP 94	28 SEP 94	
Arsenic	2.5	mg/kg	0.50	7060	22 SEP 94	23 SEP 94	
Barium	113	mg/kg	10.9	6010	22 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	22 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.55	6010	22 SEP 94	28 SEP 94	
Calcium	31000	mg/kg	109	6010	22 SEP 94	28 SEP 94	
Chromium	8.6	mg/kg	5.5	6010	22 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.5	6010	22 SEP 94	28 SEP 94	
Copper	6.4	mg/kg	5.5	6010	22 SEP 94	28 SEP 94	
Iron	9300	mg/kg	5.5	6010	22 SEP 94	28 SEP 94	B
Lead	6.3	mg/kg	1.0	7421	22 SEP 94	23 SEP 94	1
Magnesium	3030	mg/kg	109	6010	22 SEP 94	28 SEP 94	
Manganese	134	mg/kg	2.2	6010	22 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	20 SEP 94	20 SEP 94	
Molybdenum	ND	mg/kg	10.9	6010	22 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	16.4	6010	22 SEP 94	28 SEP 94	
Potassium	1970	mg/kg	546	6010	22 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	0.50	7740	22 SEP 94	23 SEP 94	
Silver	ND	mg/kg	5.5	6010	22 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	546	6010	22 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	22 SEP 94	23 SEP 94	
Vanadium	17.1	mg/kg	10.9	6010	22 SEP 94	28 SEP 94	
Zinc	23.2	mg/kg	2.2	6010	22 SEP 94	28 SEP 94	

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

Quanterra
Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 01090001 (3.00,6.00,)
Lab ID: 077682-0007-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 09 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	12600	mg/kg	57.1	6010	22 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	17.1	6010	22 SEP 94	28 SEP 94	
Arsenic	2.6	mg/kg	0.50	7060	22 SEP 94	23 SEP 94	
Barium	142	mg/kg	11.4	6010	22 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	22 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.57	6010	22 SEP 94	28 SEP 94	
Calcium	20200	mg/kg	114	6010	22 SEP 94	28 SEP 94	
Chromium	17.4	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	
Copper	6.8	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	
Iron	10400	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	B
Lead	5.5	mg/kg	1.0	7421	22 SEP 94	23 SEP 94	1
Magnesium	3450	mg/kg	114	6010	22 SEP 94	28 SEP 94	
Manganese	172	mg/kg	2.3	6010	22 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	20 SEP 94	20 SEP 94	
Molybdenum	ND	mg/kg	11.4	6010	22 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	17.1	6010	22 SEP 94	28 SEP 94	
Potassium	1900	mg/kg	571	6010	22 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	0.50	7740	22 SEP 94	23 SEP 94	
Silver	ND	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	571	6010	22 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	22 SEP 94	23 SEP 94	
Vanadium	20.6	mg/kg	11.4	6010	22 SEP 94	28 SEP 94	
Zinc	24.3	mg/kg	2.3	6010	22 SEP 94	28 SEP 94	

Percent Moisture is 12%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

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Rev 230787

J-73

Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 02660001 (2.00,3.00,)
Lab ID: 077682-0008-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 09 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	7840	mg/kg	54.7	6010	22 SEP 94	29 SEP 94	
Antimony	ND	mg/kg	16.4	6010	22 SEP 94	29 SEP 94	
Arsenic	3.2	mg/kg	0.50	7060	22 SEP 94	23 SEP 94	
Barium	213	mg/kg	10.9	6010	22 SEP 94	29 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	22 SEP 94	29 SEP 94	
Cadmium	ND	mg/kg	1.1	6010	22 SEP 94	29 SEP 94	Q
Calcium	133000	mg/kg	219	6010	22 SEP 94	29 SEP 94	R
Chromium	9.8	mg/kg	5.5	6010	22 SEP 94	29 SEP 94	
Cobalt	ND	mg/kg	5.5	6010	22 SEP 94	29 SEP 94	
Copper	ND	mg/kg	5.5	6010	22 SEP 94	29 SEP 94	
Iron	6930	mg/kg	10.9	6010	22 SEP 94	29 SEP 94	QB
Lead	3.5	mg/kg	1.0	7421	22 SEP 94	23 SEP 94	1
Magnesium	4400	mg/kg	219	6010	22 SEP 94	29 SEP 94	Q
Manganese	179	mg/kg	2.2	6010	22 SEP 94	29 SEP 94	
Mercury	ND	mg/kg	0.10	7471	20 SEP 94	20 SEP 94	
Molybdenum	ND	mg/kg	10.9	6010	22 SEP 94	29 SEP 94	
Nickel	ND	mg/kg	16.4	6010	22 SEP 94	29 SEP 94	
Potassium	1360	mg/kg	1090	6010	22 SEP 94	29 SEP 94	Q
Selenium	0.87	mg/kg	0.50	7740	22 SEP 94	23 SEP 94	
Silver	ND	mg/kg	5.5	6010	22 SEP 94	29 SEP 94	
Sodium	ND	mg/kg	1090	6010	22 SEP 94	29 SEP 94	Q
Thallium	ND	mg/kg	0.50	7841	22 SEP 94	23 SEP 94	
Vanadium	16.2	mg/kg	10.9	6010	22 SEP 94	29 SEP 94	
Zinc	32.4	mg/kg	4.4	6010	22 SEP 94	29 SEP 94	Q

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

Note Q : Reporting Limit raised due to high level of another analyte in the sample.

Note R : Raised reporting limit(s) due to high analyte level(s).

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

Quanterra
Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 01930001 (0.00,3.00,)
Lab ID: 077682-0005-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 08 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	10600	mg/kg	54.0	6010	22 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	16.2	6010	22 SEP 94	28 SEP 94	
Arsenic	2.8	mg/kg	0.50	7060	22 SEP 94	23 SEP 94	
Barium	102	mg/kg	10.8	6010	22 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	22 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.54	6010	22 SEP 94	28 SEP 94	
Calcium	30400	mg/kg	108	6010	22 SEP 94	28 SEP 94	
Chromium	8.2	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	
Copper	6.3	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	
Iron	8690	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	B
Lead	4.8	mg/kg	1.0	7421	22 SEP 94	23 SEP 94	1
Magnesium	2810	mg/kg	108	6010	22 SEP 94	28 SEP 94	
Manganese	108	mg/kg	2.2	6010	22 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	20 SEP 94	20 SEP 94	
Molybdenum	ND	mg/kg	10.8	6010	22 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	16.2	6010	22 SEP 94	28 SEP 94	
Potassium	1640	mg/kg	540	6010	22 SEP 94	28 SEP 94	
Selenium	0.61	mg/kg	0.50	7740	22 SEP 94	23 SEP 94	
Silver	ND	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	540	6010	22 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	22 SEP 94	23 SEP 94	
Vanadium	17.8	mg/kg	10.8	6010	22 SEP 94	28 SEP 94	
Zinc	22.0	mg/kg	2.2	6010	22 SEP 94	28 SEP 94	

Percent Moisture is 7%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

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Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 00970001 (3.00,6.00,)
Lab ID: 077682-0006-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 09 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	11500	mg/kg	57.4	6010	22 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	17.2	6010	22 SEP 94	28 SEP 94	
Arsenic	2.9	mg/kg	0.50	7060	22 SEP 94	23 SEP 94	
Barium	135	mg/kg	11.5	6010	22 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	22 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.57	6010	22 SEP 94	28 SEP 94	
Calcium	25700	mg/kg	115	6010	22 SEP 94	28 SEP 94	
Chromium	10.7	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	
Copper	6.7	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	
Iron	10400	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	B
Lead	5.8	mg/kg	1.0	7421	22 SEP 94	23 SEP 94	1
Magnesium	3510	mg/kg	115	6010	22 SEP 94	28 SEP 94	
Manganese	162	mg/kg	2.3	6010	22 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	20 SEP 94	20 SEP 94	
Molybdenum	ND	mg/kg	11.5	6010	22 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	17.2	6010	22 SEP 94	28 SEP 94	
Potassium	2020	mg/kg	574	6010	22 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	0.50	7740	22 SEP 94	23 SEP 94	
Silver	ND	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	574	6010	22 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	22 SEP 94	23 SEP 94	
Vanadium	21.3	mg/kg	11.5	6010	22 SEP 94	28 SEP 94	
Zinc	23.7	mg/kg	2.3	6010	22 SEP 94	28 SEP 94	

Percent Moisture is 13%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

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Quanterra
Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 02960001 (2.50,4.00,)
Lab ID: 077682-0009-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 09 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	8650	mg/kg	51.7	6010	22 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	15.5	6010	22 SEP 94	28 SEP 94	
Arsenic	2.3	mg/kg	0.50	7060	22 SEP 94	23 SEP 94	
Barium	95.4	mg/kg	10.3	6010	22 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.0	6010	22 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.52	6010	22 SEP 94	28 SEP 94	
Calcium	22800	mg/kg	103	6010	22 SEP 94	28 SEP 94	
Chromium	7.8	mg/kg	5.2	6010	22 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.2	6010	22 SEP 94	28 SEP 94	
Copper	ND	mg/kg	5.2	6010	22 SEP 94	28 SEP 94	
Iron	8150	mg/kg	5.2	6010	22 SEP 94	28 SEP 94	B
Lead	4.8	mg/kg	1.0	7421	22 SEP 94	23 SEP 94	1
Magnesium	2450	mg/kg	103	6010	22 SEP 94	28 SEP 94	
Manganese	109	mg/kg	2.1	6010	22 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	20 SEP 94	20 SEP 94	
Molybdenum	ND	mg/kg	10.3	6010	22 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	15.5	6010	22 SEP 94	28 SEP 94	
Potassium	1440	mg/kg	517	6010	22 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	0.50	7740	22 SEP 94	23 SEP 94	
Silver	ND	mg/kg	5.2	6010	22 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	517	6010	22 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	22 SEP 94	23 SEP 94	
Vanadium	15.0	mg/kg	10.3	6010	22 SEP 94	28 SEP 94	
Zinc	19.4	mg/kg	2.1	6010	22 SEP 94	28 SEP 94	

Percent Moisture is 3%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
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Quanterra
Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 01130001 (0.00,3.00,)
Lab ID: 077682-0010-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 12 SEP 94 Received: 14 SEP 94
Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	9160	mg/kg	54.3	6010	22 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	16.3	6010	22 SEP 94	28 SEP 94	
Arsenic	2.1	mg/kg	0.50	7060	22 SEP 94	23 SEP 94	
Barium	176	mg/kg	10.9	6010	22 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	22 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.54	6010	22 SEP 94	28 SEP 94	
Calcium	26400	mg/kg	109	6010	22 SEP 94	28 SEP 94	
Chromium	9.0	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	
Copper	ND	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	
Iron	8600	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	B
Lead	3.7	mg/kg	1.0	7421	22 SEP 94	23 SEP 94	1
Magnesium	3010	mg/kg	109	6010	22 SEP 94	28 SEP 94	
Manganese	120	mg/kg	2.2	6010	22 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	20 SEP 94	20 SEP 94	
Molybdenum	ND	mg/kg	10.9	6010	22 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	16.3	6010	22 SEP 94	28 SEP 94	
Potassium	1580	mg/kg	543	6010	22 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	0.50	7740	22 SEP 94	23 SEP 94	
Silver	ND	mg/kg	5.4	6010	22 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	543	6010	22 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	22 SEP 94	23 SEP 94	
Vanadium	18.0	mg/kg	10.9	6010	22 SEP 94	28 SEP 94	
Zinc	19.4	mg/kg	2.2	6010	22 SEP 94	28 SEP 94	

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney Approved By: Mei Lai

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Quanterra
Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 01200001 (0.00,3.00,)
Lab ID: 077682-0011-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 12 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	13400	mg/kg	56.6	6010	22 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	17.0	6010	22 SEP 94	28 SEP 94	
Arsenic	3.1	mg/kg	0.50	7060	22 SEP 94	23 SEP 94	
Barium	237	mg/kg	11.3	6010	22 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	22 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.57	6010	22 SEP 94	28 SEP 94	
Calcium	37500	mg/kg	113	6010	22 SEP 94	28 SEP 94	
Chromium	12.1	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	
Copper	8.0	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	
Iron	12000	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	B
Lead	6.4	mg/kg	1.0	7421	22 SEP 94	23 SEP 94	1
Magnesium	4710	mg/kg	113	6010	22 SEP 94	28 SEP 94	
Manganese	198	mg/kg	2.3	6010	22 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	20 SEP 94	20 SEP 94	
Molybdenum	ND	mg/kg	11.3	6010	22 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	17.0	6010	22 SEP 94	28 SEP 94	
Potassium	2100	mg/kg	566	6010	22 SEP 94	28 SEP 94	
Selenium	0.73	mg/kg	0.50	7740	22 SEP 94	23 SEP 94	
Silver	ND	mg/kg	5.7	6010	22 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	566	6010	22 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	22 SEP 94	23 SEP 94	
Vanadium	24.0	mg/kg	11.3	6010	22 SEP 94	28 SEP 94	
Zinc	27.7	mg/kg	2.3	6010	22 SEP 94	28 SEP 94	

Percent Moisture is 12%. All results and limits are reported on a dry weight basis.

Note B : Compound is also detected in the blank.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

I-1379

Quanterra
Environmental Services

METALS

(Water - Total)

Client Name: Gram, Inc.
Client ID: 03140001 (0.00,0.00,)
Lab ID: 077682-0012-SA
Matrix: AQUEOUS
Authorized: 14 SEP 94

Sampled: 13 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Aluminum	0.82	mg/L	0.50	6010	20 SEP 94	21 SEP 94
Antimony	ND	mg/L	0.40	6010	20 SEP 94	21 SEP 94
Arsenic	ND	mg/L	0.0050	7060	20 SEP 94	23 SEP 94
Barium	0.096	mg/L	0.020	6010	20 SEP 94	21 SEP 94
Beryllium	ND	mg/L	0.0030	6010	20 SEP 94	21 SEP 94
Cadmium	ND	mg/L	0.040	6010	20 SEP 94	21 SEP 94
Calcium	18.5	mg/L	0.50	6010	20 SEP 94	21 SEP 94
Chromium	ND	mg/L	0.070	6010	20 SEP 94	21 SEP 94
Cobalt	ND	mg/L	0.070	6010	20 SEP 94	21 SEP 94
Copper	ND	mg/L	0.060	6010	20 SEP 94	21 SEP 94
Iron	0.40	mg/L	0.10	6010	20 SEP 94	21 SEP 94
Lead	ND	mg/L	0.0050	7421	20 SEP 94	22 SEP 94
Magnesium	2.8	mg/L	0.50	6010	20 SEP 94	21 SEP 94
Manganese	0.023	mg/L	0.020	6010	20 SEP 94	21 SEP 94
Mercury	ND	mg/L	0.00020	7470	16 SEP 94	16 SEP 94
Molybdenum	ND	mg/L	0.080	6010	20 SEP 94	21 SEP 94
Nickel	ND	mg/L	0.15	6010	20 SEP 94	21 SEP 94
Potassium	ND	mg/L	5.0	6010	20 SEP 94	21 SEP 94
Selenium	ND	mg/L	0.0050	7740	20 SEP 94	23 SEP 94
Silver	ND	mg/L	0.070	6010	20 SEP 94	21 SEP 94
Sodium	ND	mg/L	5.0	6010	20 SEP 94	21 SEP 94
Thallium	ND	mg/L	0.0022	7841	20 SEP 94	23 SEP 94
Vanadium	ND	mg/L	0.080	6010	20 SEP 94	21 SEP 94
Zinc	ND	mg/L	0.020	6010	20 SEP 94	21 SEP 94

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

Quanterra
Environmental
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QC LOT ASSIGNMENT REPORT
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077682-0001-SA	SOIL	7471-IRP-S	20 SEP 94-AX	20 SEP 94-AX
077682-0001-SA	SOIL	7421-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0001-SA	SOIL	7060-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0001-SA	SOIL	7740-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0001-SA	SOIL	ICP-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0001-SA	SOIL	7841-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0002-SA	SOIL	7471-IRP-S	20 SEP 94-AX	20 SEP 94-AX
077682-0002-SA	SOIL	7421-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0002-SA	SOIL	7060-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0002-SA	SOIL	7740-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0002-SA	SOIL	ICP-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0002-SA	SOIL	7841-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0003-SA	SOIL	7471-IRP-S	20 SEP 94-AX	20 SEP 94-AX
077682-0003-SA	SOIL	7421-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0003-SA	SOIL	7060-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0003-SA	SOIL	7740-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0003-SA	SOIL	ICP-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0003-SA	SOIL	7841-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0004-SA	SOIL	7471-IRP-S	20 SEP 94-AX	20 SEP 94-AX
077682-0004-SA	SOIL	7421-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0004-SA	SOIL	7060-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0004-SA	SOIL	7740-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0004-SA	SOIL	ICP-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0004-SA	SOIL	7841-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0005-SA	SOIL	7471-IRP-S	20 SEP 94-AX	20 SEP 94-AX
077682-0005-SA	SOIL	7421-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0005-SA	SOIL	7060-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0005-SA	SOIL	7740-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0005-SA	SOIL	ICP-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0005-SA	SOIL	7841-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0006-SA	SOIL	7471-IRP-S	20 SEP 94-AX	20 SEP 94-AX
077682-0006-SA	SOIL	7421-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0006-SA	SOIL	7060-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0006-SA	SOIL	7740-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0006-SA	SOIL	ICP-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0006-SA	SOIL	7841-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0007-SA	SOIL	7471-IRP-S	20 SEP 94-AX	20 SEP 94-AX
077682-0007-SA	SOIL	7421-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0007-SA	SOIL	7060-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0007-SA	SOIL	7740-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0007-SA	SOIL	ICP-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0007-SA	SOIL	7841-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0008-SA	SOIL	7471-IRP-S	20 SEP 94-AX	20 SEP 94-AX
077682-0008-SA	SOIL	7421-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0008-SA	SOIL	7060-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0008-SA	SOIL	7740-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0008-SA	SOIL	ICP-IRP-S	22 SEP 94-TX	22 SEP 94-TX

Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Metals Analysis and Preparation (cont.)

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077682-0008-SA	SOIL	7841-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0009-SA	SOIL	7471-IRP-S	20 SEP 94-AX	20 SEP 94-AX
077682-0009-SA	SOIL	7421-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0009-SA	SOIL	7060-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0009-SA	SOIL	7740-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0009-SA	SOIL	ICP-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0009-SA	SOIL	7841-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0010-SA	SOIL	7471-IRP-S	20 SEP 94-AX	20 SEP 94-AX
077682-0010-SA	SOIL	7421-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0010-SA	SOIL	7060-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0010-SA	SOIL	7740-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0010-SA	SOIL	ICP-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0010-SA	SOIL	7841-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0011-SA	SOIL	7471-IRP-S	20 SEP 94-AX	20 SEP 94-AX
077682-0011-SA	SOIL	7421-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0011-SA	SOIL	7060-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0011-SA	SOIL	7740-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0011-SA	SOIL	ICP-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0011-SA	SOIL	7841-IRP-S	22 SEP 94-TX	22 SEP 94-TX
077682-0012-SA	AQUEOUS	ICP-AT	20 SEP 94-CX	20 SEP 94-CX
077682-0012-SA	AQUEOUS	7470-IRPAT	16 SEP 94-CX	16 SEP 94-CX
077682-0012-SA	AQUEOUS	AS-OBG-AT	20 SEP 94-CX	20 SEP 94-CX
077682-0012-SA	AQUEOUS	7421-IRPAT	20 SEP 94-CX	20 SEP 94-CX
077682-0012-SA	AQUEOUS	7740-IRPAT	20 SEP 94-CX	20 SEP 94-CX
077682-0012-SA	AQUEOUS	7841-IRPAT	20 SEP 94-CX	20 SEP 94-CX

Quanterra Environmental Services

METHOD BLANK REPORT
Metals Analysis and Preparation

Analyte	Result	Units	Reporting Limit
Test: HG-CVAA-IRP-S			
Matrix: SOIL			
QC Lot: 20 SEP 94-AX QC Run: 20 SEP 94-AX			
Mercury	ND	mg/kg	0.10
Test: PB-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX			
Lead	ND	mg/kg	0.50
Test: AS-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX			
Arsenic	ND	mg/kg	0.50
Test: SE-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX			
Selenium	ND	mg/kg	0.50
Test: ICP-IRPMS-S			
Matrix: SOIL			
QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX			
Aluminum	ND	mg/kg	50.0
Antimony	ND	mg/kg	15.0
Barium	ND	mg/kg	10.0
Beryllium	ND	mg/kg	1.0
Cadmium	ND	mg/kg	0.50
Calcium	ND	mg/kg	100
Chromium	ND	mg/kg	5.0
Cobalt	ND	mg/kg	5.0
Copper	ND	mg/kg	5.0
Iron	5.8	mg/kg	5.0
Magnesium	ND	mg/kg	100
Manganese	ND	mg/kg	2.0
Molybdenum	ND	mg/kg	10.0

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)

Analyte	Result	Units	Reporting Limit
Test: ICP-IRPMS-S			
Matrix: SOIL			
QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX			
Nickel	ND	mg/kg	15.0
Potassium	ND	mg/kg	500
Silver	ND	mg/kg	5.0
Sodium	ND	mg/kg	500
Vanadium	ND	mg/kg	10.0
Zinc	ND	mg/kg	2.0
Test: TL-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX			
Thallium	ND	mg/kg	0.50
Test: HG-CVAA-IRP-S			
Matrix: SOIL			
QC Lot: 20 SEP 94-AX QC Run: 20 SEP 94-AX			
Mercury	ND	mg/kg	0.10
Test: PB-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX			
Lead	ND	mg/kg	0.50
Test: AS-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX			
Arsenic	ND	mg/kg	0.50

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)

Analyte	Result	Units	Reporting Limit
Test: SE-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX			
Selenium	ND	mg/kg	0.50
Test: ICP-IRPMS-S			
Matrix: SOIL			
QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX			
Aluminum	ND	mg/kg	50.0
Antimony	ND	mg/kg	15.0
Barium	ND	mg/kg	10.0
Beryllium	ND	mg/kg	1.0
Cadmium	ND	mg/kg	0.50
Calcium	ND	mg/kg	100
Chromium	ND	mg/kg	5.0
Cobalt	ND	mg/kg	5.0
Copper	ND	mg/kg	5.0
Iron	5.8	mg/kg	5.0
Magnesium	ND	mg/kg	100
Manganese	ND	mg/kg	2.0
Molybdenum	ND	mg/kg	10.0
Nickel	ND	mg/kg	15.0
Potassium	ND	mg/kg	500
Silver	ND	mg/kg	5.0
Sodium	ND	mg/kg	500
Vanadium	ND	mg/kg	10.0
Zinc	ND	mg/kg	2.0
Test: TL-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX			
Thallium	ND	mg/kg	0.50

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)

Analyte	Result	Units	Reporting Limit
Test: ICP-IRPMS-AT			
Matrix: AQUEOUS			
QC Lot: 20 SEP 94-CX QC Run: 20 SEP 94-CX			
Aluminum	ND	mg/L	0.50
Antimony	ND	mg/L	0.40
Barium	ND	mg/L	0.020
Beryllium	ND	mg/L	0.0030
Cadmium	ND	mg/L	0.040
Calcium	ND	mg/L	0.50
Chromium	ND	mg/L	0.070
Cobalt	ND	mg/L	0.070
Copper	ND	mg/L	0.060
Iron	ND	mg/L	0.10
Magnesium	ND	mg/L	0.50
Manganese	ND	mg/L	0.020
Molybdenum	ND	mg/L	0.080
Nickel	ND	mg/L	0.15
Potassium	ND	mg/L	5.0
Silver	ND	mg/L	0.070
Sodium	ND	mg/L	5.0
Vanadium	ND	mg/L	0.080
Zinc	ND	mg/L	0.020
Test: HG-CVAA-COE-AT			
Matrix: AQUEOUS			
QC Lot: 16 SEP 94-CX QC Run: 16 SEP 94-CX			
Mercury	ND	mg/L	0.00020
Test: AS-FAA-GAFB-IRPMS-AT			
Matrix: AQUEOUS			
QC Lot: 20 SEP 94-CX QC Run: 20 SEP 94-CX			
Arsenic	ND	mg/L	0.0050

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METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)

Analyte	Result	Units	Reporting Limit
Test: PB-FAA-GAFB-IRPMS-AT Matrix: AQUEOUS QC Lot: 20 SEP 94-CX QC Run: 20 SEP 94-CX			
Lead	ND	mg/L	0.0050
Test: SE-FAA-GAFB-IRPMS-AT Matrix: AQUEOUS QC Lot: 20 SEP 94-CX QC Run: 20 SEP 94-CX			
Selenium	ND	mg/L	0.0050
Test: TL-FAA-GAFB-IRPMS-AT Matrix: AQUEOUS QC Lot: 20 SEP 94-CX QC Run: 20 SEP 94-CX			
Thallium	ND	mg/L	0.0022

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Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Metals Analysis and Preparation

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
Category: ICP-AT ICP Metals				
Matrix: AQUEOUS				
QC Lot: 20 SEP 94-CX QC Run: 20 SEP 94-CX				
Concentration Units: mg/L				
Aluminum	2.00	2.17	109	80-120
Antimony	0.500	0.560	112	80-120
Arsenic	0.500	0.511	102	80-120
Barium	2.00	2.23	112	80-120
Beryllium	0.0500	0.0561	112	80-120
Boron	1.00	1.09	109	80-120
Cadmium	0.0500	0.0492	98	80-120
Calcium	100	104	104	80-120
Chromium	0.200	0.213	106	80-120
Cobalt	0.500	0.524	105	80-120
Copper	0.250	0.267	107	80-120
Iron	1.00	1.10	110	80-120
Lead	0.500	0.492	98	80-120
Lithium	0.200	0.217	108	80-120
Magnesium	50.0	52.1	104	80-120
Manganese	0.500	0.527	105	80-120
Molybdenum	0.200	0.214	107	80-120
Nickel	0.500	0.522	104	80-120
Potassium	50.0	51.6	103	80-120
Selenium	2.00	2.17	108	80-120
Silver	0.0500	0.0520	104	80-120
Sodium	100	104	104	80-120
Thallium	2.00	2.24	112	80-120
Tin	4.00	4.20	105	80-120
Titanium	2.00	2.16	108	80-120
Vanadium	0.500	0.528	106	80-120
Zinc	0.500	0.519	104	80-120

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
Category: 7470-IRPAT Mercury by CVAA STATIC QC LIMITS - DO NOT UPDATE				
Matrix: AQUEOUS				
QC Lot: 16 SEP 94-CX QC Run: 16 SEP 94-CX				
Concentration Units: mg/L				
Mercury	0.00100	0.000947	95	80-120

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Metals Analysis and Preparation (cont.)

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: AS-OBG-AT Arsenic, Furnace AA				
Matrix: AQUEOUS				
QC Lot: 20 SEP 94-CX QC Run: 20 SEP 94-CX				
Concentration Units: mg/L				
Arsenic	0.0400	0.0435	109	80-120

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: 7421-IRPAT Lead, Furnance AA (Total)				
Matrix: AQUEOUS				
QC Lot: 20 SEP 94-CX QC Run: 20 SEP 94-CX				
Concentration Units: mg/L				
Lead	0.0200	0.0198	99	83-113

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: 7740-IRPAT Selenium, Furnace AA				
Matrix: AQUEOUS				
QC Lot: 20 SEP 94-CX QC Run: 20 SEP 94-CX				
Concentration Units: mg/L				
Selenium	0.0200	0.0193	96	80-120

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: 7841-IRPAT Thallium, Furnace AA				
Matrix: AQUEOUS				
QC Lot: 20 SEP 94-CX QC Run: 20 SEP 94-CX				
Concentration Units: mg/L				
Thallium	0.0500	0.0519	104	80-120

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

LABORATORY CONTROL SAMPLE REPORT (cont.)
Metals Analysis and Preparation

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: 7471-IRP-S Mercury by CVAA STATIC QC LIMITS - DO NOT UPDATE				
Matrix: SOIL QC Lot: 20 SEP 94-AX QC Run: 20 SEP 94-AX Concentration Units: mg/kg				
Mercury	32.0	32.7	102	75-125

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: 7421-IRP-S Lead, Furnace AA STATIC QC LIMTS - DO NOT UPDATE				
Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX Concentration Units: mg/kg				
Lead	50.9	60.8	119	65-135

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: 7060-IRP-S Arsenic, Furnace AA STATIC QC LIMTS - DO NOT UPDATE				
Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX Concentration Units: mg/kg				
Arsenic	72.1	88.5	123	75-125

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: 7740-IRP-S Selenium, Furnace AA STATIC QC LIMITS - DO NOT UPDATE				
Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX Concentration Units: mg/kg				
Selenium	74.2	82.8	112	70-130

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Metals Analysis and Preparation (cont.)

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
Category: ICP-IRP-S ICP Metals STATIC QC LIMITS - DO NOT UPDATE				
Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX Concentration Units: mg/kg				
Aluminum	3650	4270	117	75-140
Antimony	75.0	72.1	96	50-150
Arsenic	72.1	76.1	106	75-125
Barium	64.8	69.6	107	75-125
Beryllium	26.7	29.7	111	75-125
Calcium	2330	2500	107	75-125
Cadmium	61.6	63.4	103	75-125
Chromium	44.1	47.4	107	75-125
Copper	78.1	82.8	106	75-125
Cobalt	177	193	109	75-125
Iron	7360	8350	113	75-125
Magnesium	2550	2750	108	75-125
Manganese	141	149	106	75-125
Molybdenum	104	122	118	75-125
Potassium	3310	3600	109	75-125
Lead	50.9	53.6	105	75-125
Nickel	110	119	108	75-125
Selenium	74.2	71.0	96	60-140
Silver	71.7	71.0	99	75-125
Sodium	346	346	100	75-125
Thallium	64.1	62.4	97	75-125
Vanadium	83.0	86.7	104	75-125
Zinc	78.2	81.7	104	75-125

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
Category: 7841-IRP-S Thallium, Furnace AA STATIC QC LIMITS - DO NOT UPDATE				
Matrix: SOIL QC Lot: 22 SEP 94-TX QC Run: 22 SEP 94-TX Concentration Units: mg/kg				
Thallium	64.1	80.9	126	65-135

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

GENERAL INORGANICS

(Soil/Solid)

Quanterra Environmental Services

Client Name: Gram, Inc.
Client ID: 01780001 (0.00,3.00,)
Lab ID: 077682-0001-SA
Matrix: SOIL Sampled: 07 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.55	9012 Modified	20 SEP 94	21 SEP 94
Nitrate + Nitrite (as N)	8.3	mg/kg	0.28	353.2 Modified	26 SEP 94	27 SEP 94

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Larry Tellers Approved By: Lisa Upton

The cover letter is an integral part of this report.
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Quanterra Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 01790001 (0.00,3.00,)
Lab ID: 077682-0002-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.55	9012 Modified	20 SEP 94	21 SEP 94
Nitrate + Nitrite (as N)	5.6	mg/kg	0.27	353.2 Modified	26 SEP 94	27 SEP 94

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Larry Tellers

Approved By: Lisa Upton

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 01790002 (0.00,3.00,)
Lab ID: 077682-0003-SA
Matrix: SOIL Sampled: 07 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.54	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	3.5	mg/kg	0.27	353.2 Modified	26 SEP 94	27 SEP 94

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Larry Tellers Approved By: Lisa Upton

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 01800001 (0.00,3.00,)
Lab ID: 077682-0004-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 07 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.53	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	12.9	mg/kg	0.53	353.2 Modified	26 SEP 94	28 SEP 94 R

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

Note R : Raised reporting limit(s) due to high analyte level(s).

ND = Not detected
NA = Not applicable

Reported By: Larry Tellers

Approved By: Jennifer Kimzey

The cover letter is an integral part of this report.
Rev 230787

J. 396

Quanterra Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 01930001 (0.00,3.00,)
Lab ID: 077682-0005-SA
Matrix: SOIL Sampled: 08 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.54	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	8.3	mg/kg	0.27	353.2 Modified	26 SEP 94	27 SEP 94

Percent Moisture is 7%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Larry Tellers Approved By: Lisa Upton

The cover letter is an integral part of this report.
Rev 230787

T-397

Quanterra Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 00970001 (3.00,6.00,)
Lab ID: 077682-0006-SA
Matrix: SOIL
Authorized: 14 SEP 94

Sampled: 09 SEP 94
Prepared: See Below

Received: 14 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.57	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	8.3	mg/kg	0.29	353.2 Modified	26 SEP 94	27 SEP 94

Percent Moisture is 13%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Larry Tellers

Approved By: Lisa Upton

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 01090001 (3.00,6.00,)
Lab ID: 077682-0007-SA
Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.57	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	1.7	mg/kg	0.29	353.2 Modified	26 SEP 94	27 SEP 94

Percent Moisture is 12%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Larry Tellers Approved By: Lisa Upton

The cover letter is an integral part of this report.
Rev 230787

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 02660001 (2.00,3.00,)
Lab ID: 077682-0008-SA
Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.55	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	10.9	mg/kg	0.27	353.2 Modified	26 SEP 94	27 SEP 94

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Larry Tellers Approved By: Lisa Upton

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 02960001 (2.50,4.00,)
Lab ID: 077682-0009-SA
Matrix: SOIL Sampled: 09 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.52	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	6.5	mg/kg	0.26	353.2 Modified	26 SEP 94	27 SEP 94

Percent Moisture is 3%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Larry Tellers Approved By: Lisa Upton

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 01130001 (0.00,3.00,)
Lab ID: 077682-0010-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.54	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	5.0	mg/kg	0.27	353.2 Modified	26 SEP 94	27 SEP 94

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Larry Tellers Approved By: Lisa Upton

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 01200001 (0.00,3.00,)
Lab ID: 077682-0011-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.57	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	4.1	mg/kg	0.28	353.2 Modified	26 SEP 94	27 SEP 94

Percent Moisture is 12%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Larry Tellers Approved By: Lisa Upton

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

GENERAL INORGANICS

(Water)

Client Name: Gram, Inc.
Client ID: 03140001 (0.00,0.00,)
Lab ID: 077682-0012-SA
Matrix: AQUEOUS Sampled: 13 SEP 94 Received: 14 SEP 94
Authorized: 14 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/L	0.010	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	0.64	mg/L	0.050	353.2	NA	27 SEP 94

ND = Not detected
NA = Not applicable

Reported By: Larry Tellers Approved By: Lisa Upton

The cover letter is an integral part of this report.
Rev 230787

ST 4104

Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077682-0001-SA	SOIL	NO3&NO2-S	26 SEP 94-A	26 SEP 94-A
077682-0001-SA	SOIL	CN-IRP-S	20 SEP 94-A	20 SEP 94-A
077682-0002-SA	SOIL	NO3&NO2-S	26 SEP 94-A	26 SEP 94-A
077682-0002-SA	SOIL	CN-IRP-S	20 SEP 94-A	20 SEP 94-A
077682-0003-SA	SOIL	NO3&NO2-S	26 SEP 94-A	26 SEP 94-A
077682-0003-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077682-0004-SA	SOIL	NO3&NO2-S	26 SEP 94-A	26 SEP 94-A
077682-0004-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077682-0005-SA	SOIL	NO3&NO2-S	26 SEP 94-A	26 SEP 94-A
077682-0005-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077682-0006-SA	SOIL	NO3&NO2-S	26 SEP 94-A	26 SEP 94-A
077682-0006-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077682-0007-SA	SOIL	NO3&NO2-S	26 SEP 94-A	26 SEP 94-A
077682-0007-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077682-0008-SA	SOIL	NO3&NO2-S	26 SEP 94-A	26 SEP 94-A
077682-0008-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077682-0009-SA	SOIL	NO3&NO2-S	26 SEP 94-A	26 SEP 94-A
077682-0009-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077682-0010-SA	SOIL	NO3&NO2-S	26 SEP 94-A	26 SEP 94-A
077682-0010-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077682-0011-SA	SOIL	NO3&NO2-S	26 SEP 94-A	26 SEP 94-A
077682-0011-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077682-0012-SA	AQUEOUS	NO3&NO2-A	27 SEP 94-AX	27 SEP 94-AX
077682-0012-SA	AQUEOUS	CN-A	19 SEP 94-A	19 SEP 94-A

Quanterra Environmental Services

METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation

Analyte	Result	Units	Reporting Limit
Test: NO3&NO2-S Matrix: SOIL QC Lot: 26 SEP 94-A QC Run: 26 SEP 94-A			
Nitrate + Nitrite (as N)	ND	mg/kg	0.25
Test: CN-9012-IRP-KAFB-S Matrix: SOIL QC Lot: 20 SEP 94-A QC Run: 20 SEP 94-A			
Cyanide, Total	ND	mg/kg	0.50
Test: NO3&NO2-S Matrix: SOIL QC Lot: 26 SEP 94-A QC Run: 26 SEP 94-A			
Nitrate + Nitrite (as N)	ND	mg/kg	0.25
Test: CN-9012-IRP-KAFB-S Matrix: SOIL QC Lot: 20 SEP 94-A QC Run: 20 SEP 94-A			
Cyanide, Total	ND	mg/kg	0.50
Test: CN-9012-IRP-KAFB-S Matrix: SOIL QC Lot: 19 SEP 94-A QC Run: 19 SEP 94-A			
Cyanide, Total	ND	mg/kg	0.50
Test: CN-9012-IRP-KAFB-S Matrix: SOIL QC Lot: 19 SEP 94-A QC Run: 19 SEP 94-A			
Cyanide, Total	ND	mg/kg	0.50

Quanterra Environmental Services

METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation (cont.)

Analyte	Result	Units	Reporting Limit
Test: NO3+NO2-A			
Matrix: AQUEOUS			
QC Lot: 27 SEP 94-AX QC Run: 27 SEP 94-AX			
Nitrate + Nitrite (as N)	ND	mg/L	0.050
Test: CN-9012-AT			
Matrix: AQUEOUS			
QC Lot: 19 SEP 94-A QC Run: 19 SEP 94-A			
Cyanide, Total	ND	mg/L	0.010

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: NO3&NO2-A Nitrate plus nitrite STATIC QC LIMTS - DO NOT UPDATE				
Matrix: AQUEOUS				
QC Lot: 27 SEP 94-AX QC Run: 27 SEP 94-AX				
Concentration Units: mg/L				
Nitrate + Nitrite (as N)	0.500	0.515	103	90-110

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: CN-A Cyanide				
Matrix: AQUEOUS				
QC Lot: 19 SEP 94-A QC Run: 19 SEP 94-A				
Concentration Units: mg/L				
Cyanide, Total	0.100	0.0980	98	73-111

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: NO3&NO2-S Nitrate plus nitrite for soil/solid/waste matrices.				
Matrix: SOIL				
QC Lot: 26 SEP 94-A QC Run: 26 SEP 94-A				
Concentration Units: mg/kg				
Nitrate + Nitrite (as N)	2.50	2.49	100	75-125

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: CN-IRP-S Cyanide				
Matrix: SOIL				
QC Lot: 20 SEP 94-A QC Run: 20 SEP 94-A				
Concentration Units: mg/kg				
Cyanide, Total	5.00	4.55	91	77-115

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation (cont.)

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Category: CN-IRP-S Cyanide				
Matrix: SOIL				
QC Lot: 19 SEP 94-A QC Run: 19 SEP 94-A				
Concentration Units: mg/kg				
Cyanide, Total	5.00	4.90	98	77-115

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

J. 4109

Quanterra Environmental Services

Quanterra Incorporated
880 Riverside Parkway
West Sacramento, California 95605

916 373-5600 Telephone
916 372-1059 Fax

October 12, 1994
QUANTERRA PROJECT NUMBER: 077730
PO/CONTRACT: 006

Jeff Johnson
Gram, Inc.
8500 Menaul Blvd. NE, #B-370
Albuquerque, NM 87112

Dear Mr. Johnson:

This report contains the analytical results for the thirteen soil samples which were received under chain of custody by Quanterra West Sacramento on 17 and 21 September 1994. These samples are associated with your Kirtland Air Force Base project.

The case narrative is an integral part of this report.

If you have any questions, please call me at (916) 374-4362.

Sincerely,

Diana L. Brooks
Project Manager

jas

Quanterra
Environmental Services

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QUANTERRA PROJECT NUMBER 077730

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QUANTERRA PROJECT NUMBER 077730

Quanterra
Environmental
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CASE NARRATIVE

QUANTERRA PROJECT NUMBER 077730

General Comments

The temperature blank associated with your samples was recorded as 2.1 degrees C.

Semivolatile Organics - Method 8270

The Laboratory Control Sample (LCS) was found o have 3-Nitroaniline above the control limits. There were no positive results found in the samples, thus no corrective actions were necessary.

The Laboratory Control Sample (LCS) has benzoic acid report as NA. The actual value recovery (43%) is within the control limits. Noted in the QAPjP, this compound is flagged for a variance.

Due to electronic deliverable limitations, the library search data is available in hardcopy only.

Selected Metals - Various Methods

Analysis of thallium was performed by graphite furnace in order to achieve detection level required by the QAPjP.

No other anomalies were associated with this report.

QUANTERRA'S QUALITY ASSURANCE PROGRAM

Quanterra has implemented an extensive Quality Assurance (QA) program to ensure the production of scientifically sound, legally defensible data of known documental quality. A key element of this program is Quanterra's Laboratory Control Sample (LCS) system. Controlling lab operations with LCS (as opposed to matrix spike/matrix spike duplicate samples), allows the lab to differentiate between bias as a result of procedural errors versus bias due to matrix effects. The analyst can then identify and implement the appropriate corrective actions at the bench level, without waiting for extensive senior level review or costly and time-consuming sample re-analyses. The LCS program also provides our client with information to assess batch, and overall laboratory performance.

Laboratory Control Samples - (LCS)

Laboratory Control Samples (LCS) are well-characterized, laboratory generated samples used to monitor the laboratory's day-to-day performance of routine analytical methods. The results of the LCS are compared to well-defined laboratory acceptance criteria to determine whether the laboratory system is "in control". Three types of LCS are routinely analyzed: Duplicate Control Samples (DCS), Single Control Samples (SCS), and method blanks. Each of these LCS are described below.

Duplicate Control Samples. A DCS is a well-characterized matrix (blank water, sand, sodium sulfate or celite) which is spiked with certain target parameters and analyzed at approximately 10% of the sample load in order to establish method-specific control limits.

Single Control Samples. An SCS consists of a control matrix that is spiked with surrogate compounds appropriate to the method being used. In cases where no surrogate is available, (e.g. metals or conventional analyses) a single control sample identical to the DCS serves as the control sample. An SCS is prepared for each sample lot. Accuracy is calculated identically to the DCS.

Method Blank Results. A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your samples.

Quanterra
Environmental
Services

SAMPLE DESCRIPTION INFORMATION
for
Gram, Inc.

Lab ID	Client ID		Matrix	Sampled Date	Sampled Time	Received Date
077730-0001-SA	00460001	(3.00,6.00,)	SOIL	12 SEP 94	13:10	17 SEP 94
077730-0002-SA	00470001	(3.00,6.00,)	SOIL	12 SEP 94	13:10	17 SEP 94
077730-0003-SA	00470002	(3.00,6.00,)	SOIL	12 SEP 94	13:10	17 SEP 94
077730-0004-SA	00490001	(3.00,6.00,)	SOIL	12 SEP 94	13:10	17 SEP 94
077730-0005-SA	00760001	(3.00,6.00,)	SOIL	13 SEP 94	13:45	17 SEP 94
077730-0006-SA	00090001	(3.00,6.00,)	SOIL	14 SEP 94	09:30	17 SEP 94
077730-0007-SA	00130001	(6.00,9.00,)	SOIL	14 SEP 94	10:05	17 SEP 94
077730-0008-SA	00250001	(0.00,3.00,)	SOIL	14 SEP 94	12:45	17 SEP 94
077730-0009-SA	00350001	(0.00,3.00,)	SOIL	14 SEP 94	14:00	17 SEP 94
077730-0010-SA	01360001	(2.50,6.00,)	SOIL	15 SEP 94	10:51	21 SEP 94
077730-0011-SA	01400001	(2.50,6.00,)	SOIL	15 SEP 94	12:01	21 SEP 94
077730-0012-SA	02150001	(2.50,5.00,)	SOIL	15 SEP 94	08:15	21 SEP 94
077730-0013-SA	02250001	(3.00,6.00,)	SOIL	15 SEP 94	10:30	21 SEP 94

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	1 - 16oz glass jar for each sample ID						
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	CG						
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	16oz						
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C						
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED							
KRTLD154 - 0136-0001	S	9/15/94 1051	✓	✓		✓	✓	✓	✓
KRTLD154 - 0140-0001	S	9/15/94 1201	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0215-0001	S	9/19/94 0815	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0225-0001	S	9/16/94 1030	✓	✓		✓	✓	✓	✓
KRTLD154 - _____ - _____									
KRTLD154 - _____ - _____									
KRTLD154 - _____ - _____									
KRTLD154 - _____ - _____									
KRTLD154 - _____ - _____									
KRTLD154 - _____ - _____									
KRTLD154 - _____ - _____									

L1b-1

MATRIX:
S - SOIL*
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
LATA	Tamara K Denton	GRAM, INC	Jeff Johnson	9/20	1315

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
GRAM, INC	Jeff Johnson	FED-EX	[illegible]	823535442	9/20/94	1550

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
		[illegible]	[illegible]	9-20 94	09:15

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	1-160z jar for each sample location					
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	CG					
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	160z					
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C					
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (TE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED							
RTLD154 - 0046-0001	S	9/12/94 1310	✓	✓	✓	✓	✓	✓	✓
RTLD154 - 0047-0001	S	9/12/94 1310	✓	✓		✓	✓	✓	✓
RTLD154 - 0047-0002	S	9/12/94 1310	✓	✓		✓	✓	✓	✓
RTLD154 - 0049-0001	S	9/12/94 1310	✓	✓	✓	✓	✓	✓	✓
RTLD154 - 0076-0001	S	9/13/94 1345	✓	✓		✓	✓	✓	✓
RTLD154 - 0009-0001	S	9/14/94 0930	✓	✓		✓	✓	✓	✓
RTLD154 - 0013-0001	S	9/14/94 1025	✓	✓		✓	✓	✓	✓
RTLD154 - 0025-0001	S	9/14/94 1245	✓	✓		✓	✓	✓	✓
RTLD154 - 0035-0001	S	9/14/94 1400	✓	✓		✓	✓	✓	✓
RTLD154 -									
RTLD154 -									

ATRIX:
SOIL*
- WATER
OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

OTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT
IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL
NALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE
E IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

Cooler temp = 2.1°
Samples rec'd in good condition. MCJ
9-17-9

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
Gram, Inc.	Rhonda Mathews	GRAM, Inc	Jeff Johnson	9/16	1345

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
GRAM, INC	Jeff Johnson	Fedex		863535411	9/16	1420

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
		Quanterra	Mike Dyke	9-17-94	09:10

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 00460001 (3.00,6.00,)
Lab ID: 077730-0001-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 12 SEP 94
Prepared: 24 SEP 94

Received: 17 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

4/19

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 00470001 (3.00,6.00,)
Lab ID: 077730-0002-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 12 SEP 94
Prepared: 24 SEP 94

Received: 17 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

I-420

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 00470002 (3.00,6.00,)
Lab ID: 077730-0003-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 12 SEP 94
Prepared: 24 SEP 94

Received: 17 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

4/21

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 00490001 (3.00,6.00,)
Lab ID: 077730-0004-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 12 SEP 94
Prepared: 24 SEP 94

Received: 17 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

J 4/28

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 00090001 (3.00,6.00,)
Lab ID: 077730-0006-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 14 SEP 94
Prepared: 24 SEP 94

Received: 17 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

T-423

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 00760001 (3.00,6.00,)
Lab ID: 077730-0005-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 13 SEP 94
Prepared: 24 SEP 94

Received: 17 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

I-424

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 00130001 (6.00,9.00,)
Lab ID: 077730-0007-SA
Matrix: SOIL Sampled: 14 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: 24 SEP 94 Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

I-425

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 00250001 (0.00,3.00,)
Lab ID: 077730-0008-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 14 SEP 94
Prepared: 24 SEP 94

Received: 17 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

I-426

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 00350001 (0.00,3.00,)
Lab ID: 077730-0009-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 14 SEP 94
Prepared: 24 SEP 94

Received: 17 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.
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Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 01360001 (2.50,6.00,)
Lab ID: 077730-0010-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 15 SEP 94
Prepared: 24 SEP 94

Received: 21 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

I-428

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 01400001 (2.50,6.00,)
Lab ID: 077730-0011-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 15 SEP 94
Prepared: 24 SEP 94

Received: 21 SEP 94
Analyzed: 28 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

The cover letter is an integral part of this report.
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T-429

Quanterra Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 02150001 (2.50,5.00,)
Lab ID: 077730-0012-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 15 SEP 94
Prepared: 24 SEP 94

Received: 21 SEP 94
Analyzed: 29 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

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Environmental Services

Specialty Explosives by HPLC/MS

Method 8321

Client Name: Gram, Inc.
Client ID: 02250001 (3.00,6.00,)
Lab ID: 077730-0013-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 15 SEP 94
Prepared: 24 SEP 94

Received: 21 SEP 94
Analyzed: 29 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

ND = Not detected
NA = Not applicable

Reported By: Mike Filigenzi

Approved By: Karla Buechler

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Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Special Services - LC Mass Spectrometry

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077730-0001-SA	SOIL	8321-IRP-S	23 SEP 94-7C	23 SEP 94-7C
077730-0002-SA	SOIL	8321-IRP-S	23 SEP 94-7C	23 SEP 94-7C
077730-0003-SA	SOIL	8321-IRP-S	23 SEP 94-7C	23 SEP 94-7C
077730-0004-SA	SOIL	8321-IRP-S	23 SEP 94-7C	23 SEP 94-7C
077730-0005-SA	SOIL	8321-IRP-S	23 SEP 94-7C	23 SEP 94-7C
077730-0006-SA	SOIL	8321-IRP-S	23 SEP 94-7C	23 SEP 94-7C
077730-0007-SA	SOIL	8321-IRP-S	23 SEP 94-7C	23 SEP 94-7C
077730-0008-SA	SOIL	8321-IRP-S	23 SEP 94-7C	23 SEP 94-7C
077730-0009-SA	SOIL	8321-IRP-S	23 SEP 94-7C	23 SEP 94-7C
077730-0010-SA	SOIL	8321-IRP-S	23 SEP 94-7C	23 SEP 94-7C
077730-0011-SA	SOIL	8321-IRP-S	23 SEP 94-7C	23 SEP 94-7C
077730-0012-SA	SOIL	8321-IRP-S	23 SEP 94-7C	23 SEP 94-7C
077730-0013-SA	SOIL	8321-IRP-S	23 SEP 94-7C	23 SEP 94-7C

METHOD BLANK REPORT
Special Services - LC Mass Spectrometry

Analyte	Result	Units	Reporting Limit
Test: 8321-IRP-EXP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-7C QC Run: 23 SEP 94-7C			
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50
Test: 8321-IRP-EXP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-7C QC Run: 23 SEP 94-7C			
Nitroglycerin	ND	mg/kg	0.50
PETN	ND	mg/kg	0.50

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Special Services - LC Mass Spectrometry
Project: 077730

Category: 8321-IRP-S Explosives by HPLC/MS
Matrix: SOIL
QC Lot: 23 SEP 94-7C QC Run: 23 SEP 94-7C
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Nitroglycerin	5.00	6.61	132	65-135
PETN	2.50	2.92	117	65-135

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 00460001 (3.00,6.00,)
Lab ID: 077730-0001-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: 24 SEP 94 Analyzed: 30 SEP 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall Approved By: Karla Buechler

The cover letter is an integral part of this report.
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Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 00470001 (3.00,6.00,)
Lab ID: 077730-0002-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 12 SEP 94
Prepared: 24 SEP 94

Received: 17 SEP 94
Analyzed: 01 OCT 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 00470002 (3.00,6.00,)
Lab ID: 077730-0003-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 12 SEP 94
Prepared: 24 SEP 94

Received: 17 SEP 94
Analyzed: 01 OCT 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

I-4137

Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 00490001 (3.00,6.00,)
Lab ID: 077730-0004-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 12 SEP 94
Prepared: 24 SEP 94

Received: 17 SEP 94
Analyzed: 01 OCT 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report.
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Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 00760001 (3.00,6.00,)
Lab ID: 077730-0005-SA
Matrix: SOIL Sampled: 13 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: 24 SEP 94 Analyzed: 04 OCT 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

I - 4139

Quanterra
Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 00090001 (3.00,6.00,)
Lab ID: 077730-0006-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 14 SEP 94
Prepared: 24 SEP 94

Received: 17 SEP 94
Analyzed: 04 OCT 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 00130001 (6.00,9.00,)
Lab ID: 077730-0007-SA
Matrix: SOIL Sampled: 14 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: 24 SEP 94 Analyzed: 04 OCT 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall Approved By: Karla Buechler

The cover letter is an integral part of this report.
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Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 00250001 (0.00,3.00,)
Lab ID: 077730-0008-SA
Matrix: SOIL Sampled: 14 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: 24 SEP 94 Analyzed: 04 OCT 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall Approved By: Karla Buechler

The cover letter is an integral part of this report.
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Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 01360001 (2.50,6.00,)
Lab ID: 077730-0010-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 15 SEP 94
Prepared: 24 SEP 94

Received: 21 SEP 94
Analyzed: 04 OCT 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

I-443

Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 00350001 (0.00,3.00,)
Lab ID: 077730-0009-SA
Matrix: SOIL Sampled: 14 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: 24 SEP 94 Analyzed: 04 OCT 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall Approved By: Karla Buechler

The cover letter is an integral part of this report.
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Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 01400001 (2.50,6.00,)
Lab ID: 077730-0011-SA
Matrix: SOIL Sampled: 15 SEP 94 Received: 21 SEP 94
Authorized: 17 SEP 94 Prepared: 24 SEP 94 Analyzed: 04 OCT 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall Approved By: Karla Buechler

The cover letter is an integral part of this report.
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Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 02150001 (2.50,5.00,)
Lab ID: 077730-0012-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 15 SEP 94
Prepared: 24 SEP 94

Received: 21 SEP 94
Analyzed: 04 OCT 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

Nitroaromatics and Nitramines by HPLC

Method 8330

Client Name: Gram, Inc.
Client ID: 02250001 (3.00,6.00,)
Lab ID: 077730-0013-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 15 SEP 94
Prepared: 24 SEP 94

Received: 21 SEP 94
Analyzed: 04 OCT 94

Parameter	Result	Dry Wt. Units	Reporting Limit
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25

ND = Not detected
NA = Not applicable

Reported By: Dennis Gall

Approved By: Karla Buechler

The cover letter is an integral part of this report.
Rev 230787

J. 447

Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Special Services - LC Mass Spectrometry

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077730-0001-SA	SOIL	8330-IRP-S	23 SEP 94-7B	23 SEP 94-7B
077730-0002-SA	SOIL	8330-IRP-S	23 SEP 94-7B	23 SEP 94-7B
077730-0003-SA	SOIL	8330-IRP-S	23 SEP 94-7B	23 SEP 94-7B
077730-0004-SA	SOIL	8330-IRP-S	23 SEP 94-7B	23 SEP 94-7B
077730-0005-SA	SOIL	8330-IRP-S	23 SEP 94-7B	23 SEP 94-7B
077730-0006-SA	SOIL	8330-IRP-S	23 SEP 94-7B	23 SEP 94-7B
077730-0007-SA	SOIL	8330-IRP-S	23 SEP 94-7B	23 SEP 94-7B
077730-0008-SA	SOIL	8330-IRP-S	23 SEP 94-7B	23 SEP 94-7B
077730-0009-SA	SOIL	8330-IRP-S	23 SEP 94-7B	23 SEP 94-7B
077730-0010-SA	SOIL	8330-IRP-S	23 SEP 94-7B	23 SEP 94-7B
077730-0011-SA	SOIL	8330-IRP-S	23 SEP 94-7B	23 SEP 94-7B
077730-0012-SA	SOIL	8330-IRP-S	23 SEP 94-7B	23 SEP 94-7B
077730-0013-SA	SOIL	8330-IRP-S	23 SEP 94-7B	23 SEP 94-7B

Quanterra Environmental Services

METHOD BLANK REPORT
Special Services - LC Mass Spectrometry

Analyte	Result	Units	Reporting Limit
Test: 8330-IRP-KAFB-1C-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-7B QC Run: 23 SEP 94-7B			
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25
Test: 8330-IRP-KAFB-1C-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-7B QC Run: 23 SEP 94-7B			
HMX	ND	mg/kg	0.25
sym-Trinitrobenzene	ND	mg/kg	0.25
RDX	ND	mg/kg	0.25
1,3-Dinitrobenzene	ND	mg/kg	0.25
Nitrobenzene	ND	mg/kg	0.25
2,4,6-Trinitrotoluene	ND	mg/kg	0.25
Tetryl	ND	mg/kg	0.25
2,4-Dinitrotoluene	ND	mg/kg	0.25
2,6-Dinitrotoluene	ND	mg/kg	0.25
2-Nitrotoluene	ND	mg/kg	0.25
3-Nitrotoluene	ND	mg/kg	0.25
4-Nitrotoluene	ND	mg/kg	0.25

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Special Services - LC Mass Spectrometry
Project: 077730

Category: 8330-IRP-S Explosives by HPLC
Matrix: SOIL
QC Lot: 23 SEP 94-7B QC Run: 23 SEP 94-7B
Concentration Units: mg/kg

Analyte	Concentration Spiked	Concentration Measured	Accuracy(%) LCS	Accuracy(%) Limits
HMX	1.00	0.886	89	75-107
sym-Trinitrobenzene	1.00	0.937	94	65-135
RDX	1.00	0.868	87	70-99
1,3-Dinitrobenzene	1.00	0.891	89	74-99
Nitrobenzene	1.00	0.875	88	71-95
2,4,6-Trinitrotoluene	1.00	0.898	90	75-107
Tetryl	1.00	1.05	105	65-135
2,4-Dinitrotoluene	1.00	0.860	86	72-106
2,6-Dinitrotoluene	1.00	0.885	88	66-102
2-Am-DNT	1.00	0.882	88	77-101
4-Am-DNT	1.00	0.868	87	77-108
2-Nitrotoluene	1.00	0.884	88	72-97
4-Nitrotoluene	1.00	0.922	92	67-110
3-Nitrotoluene	1.00	0.960	96	75-104

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 00460001 (3.00,6.00,)
Lab ID: 077730-0001-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: 21 SEP 94 Analyzed: 06 OCT 94

Parameter	Result	Dry Weight Units	Reporting Limit
Acenaphthene	ND	mg/kg	0.74
Acenaphthylene	ND	mg/kg	0.74
Anthracene	ND	mg/kg	0.74
Benzo(a)anthracene	ND	mg/kg	0.74
Benzo(a)pyrene	ND	mg/kg	0.74
Benzo(b)fluoranthene	ND	mg/kg	0.74
Benzo(g,h,i)perylene	ND	mg/kg	0.74
Benzo(k)fluoranthene	ND	mg/kg	0.74
Benzoic acid	ND	mg/kg	1.7
Benzyl alcohol	ND	mg/kg	1.4
4-Bromophenyl phenyl ether	ND	mg/kg	0.74
Butyl benzyl phthalate	ND	mg/kg	0.74
4-Chloroaniline	ND	mg/kg	1.4
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.74
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.74
bis(2-Chloroethyl) ether	ND	mg/kg	0.74
4-Chloro-3-methylphenol	ND	mg/kg	1.4
2-Chloronaphthalene	ND	mg/kg	0.74
2-Chlorophenol	ND	mg/kg	0.35
4-Chlorophenyl phenyl ether	ND	mg/kg	0.74
Chrysene	ND	mg/kg	0.74
Di-n-butyl phthalate	ND	mg/kg	0.74
Dibenz(a,h)anthracene	ND	mg/kg	0.74
Dibenzofuran	ND	mg/kg	0.74
1,2-Dichlorobenzene	ND	mg/kg	0.74
1,3-Dichlorobenzene	ND	mg/kg	0.74
1,4-Dichlorobenzene	ND	mg/kg	0.74
3,3'-Dichlorobenzidine	ND	mg/kg	1.4
2,4-Dichlorophenol	ND	mg/kg	0.35
Diethyl phthalate	ND	mg/kg	0.74
2,4-Dimethylphenol	ND	mg/kg	0.35
Dimethyl phthalate	ND	mg/kg	0.74
4,6-Dinitro-2-methylphenol	ND	mg/kg	3.5
2,4-Dinitrophenol	ND	mg/kg	3.5
2,4-Dinitrotoluene	ND	mg/kg	0.74
2,6-Dinitrotoluene	ND	mg/kg	0.74
Di-n-octyl phthalate	ND	mg/kg	0.74

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Donald Taylor Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 00460001 (3.00,6.00,)
Lab ID: 077730-0001-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: 21 SEP 94 Analyzed: 06 OCT 94

Parameter	Result	Dry Weight Units	Reporting Limit
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.74
Fluoranthene	ND	mg/kg	0.74
Fluorene	ND	mg/kg	0.74
Hexachlorobenzene	ND	mg/kg	0.74
Hexachlorobutadiene	ND	mg/kg	0.74
Hexachlorocyclopentadiene	ND	mg/kg	0.74
Hexachloroethane	ND	mg/kg	0.74
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.74
Isophorone	ND	mg/kg	0.74
2-Methylnaphthalene	ND	mg/kg	0.74
2-Methylphenol	ND	mg/kg	0.35
4-Methylphenol	ND	mg/kg	0.35
Naphthalene	58	mg/kg	0.74
2-Nitroaniline	ND	mg/kg	3.5
3-Nitroaniline	ND	mg/kg	3.5
4-Nitroaniline	ND	mg/kg	3.5
Nitrobenzene	ND	mg/kg	0.74
2-Nitrophenol	ND	mg/kg	0.35
4-Nitrophenol	ND	mg/kg	1.7
N-Nitrosodiphenylamine	ND	mg/kg	0.74
N-Nitroso-di-n-propylamine	ND	mg/kg	0.74
Pentachlorophenol	ND	mg/kg	3.5
Phenanthrene	46	mg/kg	0.74
Phenol	ND	mg/kg	0.35
Pyrene	ND	mg/kg	0.74
1,2,4-Trichlorobenzene	ND	mg/kg	0.74
2,4,5-Trichlorophenol	ND	mg/kg	3.5
2,4,6-Trichlorophenol	ND	mg/kg	0.35

Surrogate	Recovery	
Nitrobenzene-d5	75	%
2-Fluorobiphenyl	86	%
Terphenyl-d14	116	%
Phenol-d5	90	%
2-Fluorophenol	80	%
2,4,6-Tribromophenol	94	%

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Donald Taylor Approved By: Steve Rogers

The cover letter is an integral part of this report.
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Quanterra Environmental Services

Semivolatiles Library Search (20 Compound TID)

Method 8270

Client Name: Gram, Inc.
Client ID: 00460001 (3.00,6.00,)
Lab ID: 077730-0001-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: NA Analyzed: 06 OCT 94

Parameter	Result	Units	Reporting Limit
Heptane, 2,4-dimethyl-	340	ug/kg	--
Unknown lactone	530	ug/kg	--
Unknown ketone	1500	ug/kg	--
Unknown oxygenated compound	1800	ug/kg	--
Unknown oxygenated compound	6800	ug/kg	--
Unknown	620	ug/kg	--
Unknown alkane	700	ug/kg	--
Unknown alkane	850	ug/kg	--
Unknown	830	ug/kg	--
Pentacosane	1100	ug/kg	--
Unknown alkane	970	ug/kg	--
Unknown alkane	1100	ug/kg	--
Unknown	910	ug/kg	--
Unknown alkane	770	ug/kg	--
Unknown alkane	790	ug/kg	--
Unknown alkane	470	ug/kg	--
Unknown alkane	550	ug/kg	--
Unknown hopane	430	ug/kg	--
Unknown alkane	370	ug/kg	--
Unknown	400	ug/kg	--

ND = Not detected
NA = Not applicable

Reported By: Donald Taylor Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

I-453

Quanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 00490001 (3.00,6.00,)
Lab ID: 077730-0004-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: 21 SEP 94 Analyzed: 06 OCT 94

Parameter	Result	Dry Weight Units	Reporting Limit
Acenaphthene	ND	mg/kg	0.74
Acenaphthylene	ND	mg/kg	0.74
Anthracene	ND	mg/kg	0.74
Benzo(a)anthracene	ND	mg/kg	0.74
Benzo(a)pyrene	ND	mg/kg	0.74
Benzo(b)fluoranthene	ND	mg/kg	0.74
Benzo(g,h,i)perylene	ND	mg/kg	0.74
Benzo(k)fluoranthene	ND	mg/kg	0.74
Benzoic acid	ND	mg/kg	1.7
Benzyl alcohol	ND	mg/kg	1.4
4-Bromophenyl phenyl ether	ND	mg/kg	0.74
Butyl benzyl phthalate	ND	mg/kg	0.74
4-Chloroaniline	ND	mg/kg	1.4
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.74
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.74
bis(2-Chloroethyl) ether	ND	mg/kg	0.74
4-Chloro-3-methylphenol	ND	mg/kg	1.4
2-Chloronaphthalene	ND	mg/kg	0.74
2-Chlorophenol	ND	mg/kg	0.35
4-Chlorophenyl phenyl ether	ND	mg/kg	0.74
Chrysene	ND	mg/kg	0.74
Di-n-butyl phthalate	ND	mg/kg	0.74
Dibenz(a,h)anthracene	ND	mg/kg	0.74
Dibenzofuran	ND	mg/kg	0.74
1,2-Dichlorobenzene	ND	mg/kg	0.74
1,3-Dichlorobenzene	ND	mg/kg	0.74
1,4-Dichlorobenzene	ND	mg/kg	0.74
3,3'-Dichlorobenzidine	ND	mg/kg	1.4
2,4-Dichlorophenol	ND	mg/kg	0.35
Diethyl phthalate	ND	mg/kg	0.74
2,4-Dimethylphenol	ND	mg/kg	0.35
Dimethyl phthalate	ND	mg/kg	0.74
4,6-Dinitro-2-methylphenol	ND	mg/kg	3.5
2,4-Dinitrophenol	ND	mg/kg	3.5
2,4-Dinitrotoluene	ND	mg/kg	0.74
2,6-Dinitrotoluene	ND	mg/kg	0.74
Di-n-octyl phthalate	ND	mg/kg	0.74

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Donald Taylor Approved By: Steve Rogers

The cover letter is an integral part of this report.
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Quanterra
Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 00490001 (3.00,6.00,)
Lab ID: 077730-0004-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: 21 SEP 94 Analyzed: 06 OCT 94

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note J : Result is detected below the reporting limit or
is an estimated concentration.

ND = Not detected
NA = Not applicable

Reported By: Donald Taylor Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

I-4155

Quanterra Environmental Services

Semivolatile Organics

Method 8270

Client Name: Gram, Inc.
Client ID: 00490001 (3.00,6.00,)
Lab ID: 077730-0004-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: 21 SEP 94 Analyzed: 06 OCT 94

Parameter	Result	Dry Weight Units	Reporting Limit	
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.74	
Fluoranthene	ND	mg/kg	0.74	
Fluorene	ND	mg/kg	0.74	
Hexachlorobenzene	ND	mg/kg	0.74	
Hexachlorobutadiene	ND	mg/kg	0.74	
Hexachlorocyclopentadiene	ND	mg/kg	0.74	
Hexachloroethane	ND	mg/kg	0.74	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.74	
Isophorone	ND	mg/kg	0.74	
2-Methylnaphthalene	ND	mg/kg	0.74	
2-Methylphenol	ND	mg/kg	0.35	
4-Methylphenol	ND	mg/kg	0.35	
Naphthalene	0.058	mg/kg	0.74	J
2-Nitroaniline	ND	mg/kg	3.5	
3-Nitroaniline	ND	mg/kg	3.5	
4-Nitroaniline	ND	mg/kg	3.5	
Nitrobenzene	ND	mg/kg	0.74	
2-Nitrophenol	ND	mg/kg	0.35	
4-Nitrophenol	ND	mg/kg	1.7	
N-Nitrosodiphenylamine	ND	mg/kg	0.74	
N-Nitroso-di-n-propylamine	ND	mg/kg	0.74	
Pentachlorophenol	ND	mg/kg	3.5	
Phenanthrene	0.046	mg/kg	0.74	J
Phenol	ND	mg/kg	0.35	
Pyrene	ND	mg/kg	0.74	
1,2,4-Trichlorobenzene	ND	mg/kg	0.74	
2,4,5-Trichlorophenol	ND	mg/kg	3.5	
2,4,6-Trichlorophenol	ND	mg/kg	0.35	

Surrogate	Recovery	
Nitrobenzene-d5	83	%
2-Fluorobiphenyl	87	%
Terphenyl-d14	124	%
Phenol-d5	92	%
2-Fluorophenol	85	%
2,4,6-Tribromophenol	100	%

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Donald Taylor Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

I = 456

Semivolatiles Library Search (20 Compound TID)

Quanterra Environmental Services

Method 8270

Client Name: Gram, Inc.
Client ID: 00490001 (3.00,6.00,)
Lab ID: 077730-0004-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: NA Analyzed: 06 OCT 94

Parameter	Result	Units	Reporting Limit
Heptane, 2,4-dimethyl-	370	ug/kg	--
Octane, 3-methyl-	240	ug/kg	--
Unknown lactone	410	ug/kg	--
Unknown ketone	1600	ug/kg	--
Unknown oxygenated compound	1900	ug/kg	--
Unknown oxygenated compound	6300	ug/kg	--
Unknown alkane	240	ug/kg	--
Sulfur, mol. (S8)	7600	ug/kg	--
Unknown alkane	590	ug/kg	--
Unknown alkane	950	ug/kg	--
Pentacosane	1500	ug/kg	--
Unknown alkane	1000	ug/kg	--
Unknown alkane	1500	ug/kg	--
Unknown	690	ug/kg	--
Unknown alkane	1000	ug/kg	--
Unknown alkane	930	ug/kg	--
Unknown alkane	600	ug/kg	--
Unknown alkane	630	ug/kg	--
Unknown alkane	250	ug/kg	--
Unknown	280	ug/kg	--

ND = Not detected
NA = Not applicable

Reported By: Donald Taylor Approved By: Steve Rogers

The cover letter is an integral part of this report.
Rev 230787

I-457

Quanterra
Environmental
Services

QC LOT ASSIGNMENT REPORT
Semivolatile Organics by GC/MS

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077730-0001-SA	SOIL	8270-IRPSL	21 SEP 94-11A	21 SEP 94-11A
077730-0004-SA	SOIL	8270-IRPSL	21 SEP 94-11A	21 SEP 94-11A

Quanterra Environmental Services

METHOD BLANK REPORT
Semivolatile Organics by GC/MS

Test: 8270-IRPMS-L-S
Matrix: SOIL
QC Lot: 21 SEP 94-11A QC Run: 21 SEP 94-11A

Analyte	Result	Units	Reporting Limit
Acenaphthene	ND	mg/kg	0.70
Acenaphthylene	ND	mg/kg	0.70
Anthracene	ND	mg/kg	0.70
Benzo(a)anthracene	ND	mg/kg	0.70
Benzo(a)pyrene	ND	mg/kg	0.70
Benzo(b)fluoranthene	ND	mg/kg	0.70
Benzo(g,h,i)perylene	ND	mg/kg	0.70
Benzo(k)fluoranthene	ND	mg/kg	0.70
Benzoic acid	ND	mg/kg	1.6
Benzyl alcohol	ND	mg/kg	1.3
4-Bromophenyl phenyl ether	ND	mg/kg	0.70
Butyl benzyl phthalate	ND	mg/kg	0.70
4-Chloroaniline	ND	mg/kg	1.3
2,2'-Oxybis(1-chloropropane)	ND	mg/kg	0.70
bis(2-Chloroethoxy)-methane	ND	mg/kg	0.70
bis(2-Chloroethyl) ether	ND	mg/kg	0.70
4-Chloro-3-methylphenol	ND	mg/kg	1.3
2-Chloronaphthalene	ND	mg/kg	0.70
2-Chlorophenol	ND	mg/kg	0.33
4-Chlorophenyl phenyl ether	ND	mg/kg	0.70
Chrysene	ND	mg/kg	0.70
Di-n-butyl phthalate	ND	mg/kg	0.70
Dibenz(a,h)anthracene	ND	mg/kg	0.70
Dibenzofuran	ND	mg/kg	0.70
1,2-Dichlorobenzene	ND	mg/kg	0.70
1,3-Dichlorobenzene	ND	mg/kg	0.70
1,4-Dichlorobenzene	ND	mg/kg	0.70
3,3'-Dichlorobenzidine	ND	mg/kg	1.3
2,4-Dichlorophenol	ND	mg/kg	0.33
Diethyl phthalate	ND	mg/kg	0.70
2,4-Dimethylphenol	ND	mg/kg	0.33
Dimethyl phthalate	ND	mg/kg	0.70
4,6-Dinitro-2-methylphenol	ND	mg/kg	3.3
2,4-Dinitrophenol	ND	mg/kg	3.3
2,4-Dinitrotoluene	ND	mg/kg	0.70
2,6-Dinitrotoluene	ND	mg/kg	0.70
Di-n-octyl phthalate	ND	mg/kg	0.70

Quanterra Environmental Services

METHOD BLANK REPORT
Semivolatile Organics by GC/MS (cont.)

Analyte	Result	Units	Reporting Limit
Test: 8270-IRPMS-L-S			
Matrix: SOIL			
QC Lot: 21 SEP 94-11A QC Run: 21 SEP 94-11A			
bis(2-Ethylhexyl)-phthalate	ND	mg/kg	0.70
Fluoranthene	ND	mg/kg	0.70
Fluorene	ND	mg/kg	0.70
Hexachlorobenzene	ND	mg/kg	0.70
Hexachlorobutadiene	ND	mg/kg	0.70
Hexachlorocyclopentadiene	ND	mg/kg	0.70
Hexachloroethane	ND	mg/kg	0.70
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.70
Isophorone	ND	mg/kg	0.70
2-Methylnaphthalene	ND	mg/kg	0.70
2-Methylphenol	ND	mg/kg	0.33
4-Methylphenol	ND	mg/kg	0.33
Naphthalene	ND	mg/kg	0.70
2-Nitroaniline	ND	mg/kg	3.3
3-Nitroaniline	ND	mg/kg	3.3
4-Nitroaniline	ND	mg/kg	3.3
Nitrobenzene	ND	mg/kg	0.70
2-Nitrophenol	ND	mg/kg	0.33
4-Nitrophenol	ND	mg/kg	1.6
N-Nitrosodiphenylamine	ND	mg/kg	0.70
N-Nitroso-di-n-propylamine	ND	mg/kg	0.70
Pentachlorophenol	ND	mg/kg	3.3
Phenanthrene	ND	mg/kg	0.70
Phenol	ND	mg/kg	0.33
Pyrene	ND	mg/kg	0.70
1,2,4-Trichlorobenzene	ND	mg/kg	0.70
2,4,5-Trichlorophenol	ND	mg/kg	3.3
2,4,6-Trichlorophenol	ND	mg/kg	0.33

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS
Project: 077730

Category: 8270-IRPSL Semivolatile Organics
(Contain all compounds for IRPMS Low soil)
Matrix: SOIL
QC Lot: 21 SEP 94-11A QC Run: 21 SEP 94-11A
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Phenol	6.70	4.95	74	41-123
bis(2-Chloroethyl) ether	3.30	2.63	80	43-117
2-Chlorophenol	6.70	5.00	75	44-116
1,3-Dichlorobenzene	3.30	2.62	79	39-106
1,4-Dichlorobenzene	3.30	2.61	79	40-106
Benzyl alcohol	3.30	2.88	87	37-125
1,2-Dichlorobenzene	3.30	2.69	82	40-107
2-Methylphenol	6.70	5.01	75	44-128
2,2'-Oxybis(1-chloropropane)	3.30	2.71	82	38-116
4-Methylphenol	6.70	5.55	83	36-138
N-Nitroso-di-n-propylamine	3.30	2.92	88	43-123
Hexachloroethane	3.30	2.67	81	39-106
Nitrobenzene	3.30	2.83	86	35-180
Isophorone	3.30	2.30	70	20-134
2-Nitrophenol	6.70	5.00	75	40-128
2,4-Dimethylphenol	6.70	5.01	75	38-127
Benzoic acid	6.70	ND	NC	1-137
bis(2-Chloroethoxy)-methane	3.30	2.67	81	40-117
2,4-Dichlorophenol	6.70	4.74	71	34-129
1,2,4-Trichlorobenzene	3.30	2.54	77	36-114
Naphthalene	3.30	2.33	71	41-108
4-Chloroaniline	3.30	1.13	34	0-63
Hexachlorobutadiene	3.30	2.63	80	33-114
4-Chloro-3-methylphenol	6.70	5.96	89	33-143
2-Methylnaphthalene	3.30	2.44	74	0-197
Hexachlorocyclopentadiene	3.30	2.30	70	29-111
2,4,6-Trichlorophenol	6.70	5.21	78	41-132
2,4,5-Trichlorophenol	6.70	5.38	80	36-129
2-Chloronaphthalene	3.30	2.61	79	40-119
2-Nitroaniline	3.30	3.26	99	45-129
Dimethyl phthalate	3.30	2.80	85	48-116
Acenaphthylene	3.30	2.45	74	43-114
2,6-Dinitrotoluene	3.30	3.17	96	44-127
3-Nitroaniline	3.30	5.93	180	0-119
Acenaphthene	3.30	2.42	73	41-113
2,4-Dinitrophenol	6.70	6.60	99	0-139
4-Nitrophenol	6.70	8.08	121	41-144

N = Not Calculated, calculation not applicable.
N = Not Detected
ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS (cont.)
Project: 077730

Category: 8270-IRPSL Semivolatile Organics (cont.)
(Contain all compounds for IRPMS Low soil)
Matrix: SOIL
QC Lot: 21 SEP 94-11A QC Run: 21 SEP 94-11A
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits (cont.)
Dibenzofuran	3.30	2.61	79	42-116
2,4-Dinitrotoluene	3.30	3.39	103	43-129
Diethyl phthalate	3.30	2.91	88	46-118
Fluorene	3.30	2.59	78	43-117
4-Chlorophenyl phenyl ether	3.30	2.60	79	41-120
4-Nitroaniline	3.30	4.65	141	0-189
4,6-Dinitro-2-methylphenol	6.70	6.87	103	0-181
N-Nitrosodiphenylamine	3.30	2.79	85	9-241
4-Bromophenyl phenyl ether	3.30	2.69	82	41-126
Hexachlorobenzene	3.30	2.71	82	40-126
Pentachlorophenol	6.70	6.42	96	29-137
Phenanthrene	3.30	2.49	75	54-120
Anthracene	3.30	2.36	72	46-119
Di-n-butyl phthalate	3.30	2.85	86	44-130
Fluoranthene	3.30	2.47	75	44-126
Pyrene	3.30	2.56	78	52-115
Butyl benzyl phthalate	3.30	3.18	96	50-131
3,3'-Dichlorobenzidine	3.30	2.59	78	7-141
Benzo(a)anthracene	3.30	2.57	78	48-127
Chrysene	3.30	2.48	75	49-123
bis(2-Ethylhexyl)-phthalate	3.30	2.80	85	48-130
Di-n-octyl phthalate	3.30	2.58	78	44-137
Benzo(b)fluoranthene	3.30	2.85	86	44-136
Benzo(k)fluoranthene	3.30	1.99	60	43-127
Benzo(a)pyrene	3.30	2.37	72	46-132
Indeno(1,2,3-cd)pyrene	3.30	2.54	77	47-133
Dibenz(a,h)anthracene	3.30	2.42	73	47-129
Benzo(g,h,i)perylene	3.30	2.54	77	40-133

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
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Services

SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC/MS

Analyte	Concentration Spiked	Measured	Accuracy(%) SCS	Limits
Category: 8270-IRPSL				
Matrix: SOIL				
QC Lot: 21 SEP 94-11A QC Run: 21 SEP 94-11A				
Concentration Units: mg/kg				
Nitrobenzene-d5	0.33	0.32	98	38-116
2-Fluorobiphenyl	0.33	0.33	100	42-120
Terphenyl-d14	0.33	0.39	118	40-141
Phenol-d5	0.67	0.67	100	32-131
2-Fluorophenol	0.67	0.67	100	23-184
2,4,6-Tribromophenol	0.67	0.66	98	20-109

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 00460001 (3.00,6.00,)
Lab ID: 077730-0001-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 12 SEP 94
Prepared: See Below

Received: 17 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	11000	mg/kg	52.5	6010	23 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	15.8	6010	23 SEP 94	28 SEP 94	
Arsenic	5.9	mg/kg	1.0	7060	23 SEP 94	28 SEP 94	1
Barium	134	mg/kg	10.5	6010	23 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	23 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.53	6010	23 SEP 94	28 SEP 94	
Calcium	18300	mg/kg	105	6010	23 SEP 94	28 SEP 94	
Chromium	14.2	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Cobalt	5.7	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Copper	191	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Iron	27600	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Lead	27.2	mg/kg	5.0	7421	23 SEP 94	26 SEP 94	R
Magnesium	3660	mg/kg	105	6010	23 SEP 94	28 SEP 94	
Manganese	408	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	23 SEP 94	23 SEP 94	
Molybdenum	ND	mg/kg	10.5	6010	23 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	15.8	6010	23 SEP 94	28 SEP 94	
Potassium	2930	mg/kg	525	6010	23 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	1.0	7740	23 SEP 94	27 SEP 94	G
Silver	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	525	6010	23 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	23 SEP 94	24 SEP 94	
Vanadium	18.1	mg/kg	10.5	6010	23 SEP 94	28 SEP 94	
Zinc	126	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note R : Raised reporting limit(s) due to high analyte level(s).

Note G : Reporting Limit raised due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

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Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 00470001 (3.00,6.00,)
Lab ID: 077730-0002-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 12 SEP 94
Prepared: See Below

Received: 17 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	11600	mg/kg	52.8	6010	23 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	15.8	6010	23 SEP 94	28 SEP 94	
Arsenic	7.2	mg/kg	0.50	7060	23 SEP 94	28 SEP 94	
Barium	130	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	23 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.53	6010	23 SEP 94	28 SEP 94	
Calcium	14300	mg/kg	106	6010	23 SEP 94	28 SEP 94	
Chromium	19.5	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Cobalt	7.1	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Copper	208	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Iron	30300	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Lead	20.4	mg/kg	10.0	7421	23 SEP 94	27 SEP 94	R
Magnesium	3880	mg/kg	106	6010	23 SEP 94	28 SEP 94	
Manganese	445	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	23 SEP 94	23 SEP 94	
Molybdenum	ND	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Nickel	19.3	mg/kg	15.8	6010	23 SEP 94	28 SEP 94	
Potassium	3210	mg/kg	528	6010	23 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	1.0	7740	23 SEP 94	28 SEP 94	G
Silver	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	528	6010	23 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	23 SEP 94	24 SEP 94	
Vanadium	17.1	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Zinc	107	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note R : Raised reporting limit(s) due to high analyte level(s).

Note G : Reporting Limit raised due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
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Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 00470002 (3.00,6.00,)
Lab ID: 077730-0003-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 12 SEP 94
Prepared: See Below

Received: 17 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	8710	mg/kg	52.6	6010	23 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	15.8	6010	23 SEP 94	28 SEP 94	
Arsenic	5.5	mg/kg	0.50	7060	23 SEP 94	26 SEP 94	
Barium	115	mg/kg	10.5	6010	23 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	23 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.53	6010	23 SEP 94	28 SEP 94	
Calcium	14500	mg/kg	105	6010	23 SEP 94	28 SEP 94	
Chromium	17.3	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Cobalt	6.7	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Copper	1520	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Iron	27300	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Lead	20.5	mg/kg	2.5	7421	23 SEP 94	26 SEP 94	R
Magnesium	3280	mg/kg	105	6010	23 SEP 94	28 SEP 94	
Manganese	420	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	23 SEP 94	23 SEP 94	
Molybdenum	ND	mg/kg	10.5	6010	23 SEP 94	28 SEP 94	
Nickel	17.1	mg/kg	15.8	6010	23 SEP 94	28 SEP 94	
Potassium	2530	mg/kg	526	6010	23 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	1.0	7740	23 SEP 94	05 OCT 94	G
Silver	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	526	6010	23 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	23 SEP 94	24 SEP 94	
Vanadium	15.2	mg/kg	10.5	6010	23 SEP 94	28 SEP 94	
Zinc	100	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note R : Raised reporting limit(s) due to high analyte level(s).

Note G : Reporting Limit raised due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

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Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 00490001 (3.00,6.00,)
Lab ID: 077730-0004-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 12 SEP 94
Prepared: See Below

Received: 17 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	12800	mg/kg	52.8	6010	23 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	15.8	6010	23 SEP 94	28 SEP 94	
Arsenic	3.7	mg/kg	0.50	7060	23 SEP 94	26 SEP 94	
Barium	163	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	23 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.53	6010	23 SEP 94	28 SEP 94	
Calcium	27100	mg/kg	106	6010	23 SEP 94	28 SEP 94	
Chromium	11.5	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Copper	22.8	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Iron	12100	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Lead	25.1	mg/kg	2.5	7421	23 SEP 94	26 SEP 94	R
Magnesium	4160	mg/kg	106	6010	23 SEP 94	28 SEP 94	
Manganese	257	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	23 SEP 94	23 SEP 94	
Molybdenum	ND	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	15.8	6010	23 SEP 94	28 SEP 94	
Potassium	3080	mg/kg	528	6010	23 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	1.0	7740	23 SEP 94	28 SEP 94	lq
Silver	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	528	6010	23 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	23 SEP 94	24 SEP 94	
Vanadium	19.0	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Zinc	63.7	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note R : Raised reporting limit(s) due to high analyte level(s).

Note l : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note q : Post-digestion spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

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I - 4168

Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 00760001 (3.00,6.00,)
Lab ID: 077730-0005-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 13 SEP 94
Prepared: See Below

Received: 17 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	10000	mg/kg	53.0	6010	23 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	15.9	6010	23 SEP 94	28 SEP 94	
Arsenic	4.0	mg/kg	0.50	7060	23 SEP 94	26 SEP 94	
Barium	122	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	23 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.53	6010	23 SEP 94	28 SEP 94	
Calcium	35600	mg/kg	106	6010	23 SEP 94	28 SEP 94	
Chromium	9.2	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Copper	11.3	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Iron	10500	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Lead	8.3	mg/kg	1.0	7421	23 SEP 94	26 SEP 94	R
Magnesium	3700	mg/kg	106	6010	23 SEP 94	28 SEP 94	
Manganese	214	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	23 SEP 94	23 SEP 94	
Molybdenum	ND	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	15.9	6010	23 SEP 94	28 SEP 94	
Potassium	2240	mg/kg	530	6010	23 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	1.0	7740	23 SEP 94	28 SEP 94	1
Silver	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	530	6010	23 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	23 SEP 94	24 SEP 94	
Vanadium	17.8	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Zinc	41.9	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

Note R : Raised reporting limit(s) due to high analyte level(s).

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
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Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 00090001 (3.00,6.00,)
Lab ID: 077730-0006-SA
Matrix: SOIL Sampled: 14 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	12300	mg/kg	54.4	6010	23 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	16.3	6010	23 SEP 94	28 SEP 94	
Arsenic	5.2	mg/kg	0.50	7060	23 SEP 94	26 SEP 94	
Barium	139	mg/kg	10.9	6010	23 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	23 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.54	6010	23 SEP 94	28 SEP 94	
Calcium	32900	mg/kg	109	6010	23 SEP 94	28 SEP 94	
Chromium	11.0	mg/kg	5.4	6010	23 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.4	6010	23 SEP 94	28 SEP 94	
Copper	9.0	mg/kg	5.4	6010	23 SEP 94	28 SEP 94	
Iron	12000	mg/kg	5.4	6010	23 SEP 94	28 SEP 94	
Lead	10.2	mg/kg	1.0	7421	23 SEP 94	26 SEP 94	R
Magnesium	4380	mg/kg	109	6010	23 SEP 94	28 SEP 94	
Manganese	266	mg/kg	2.2	6010	23 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	23 SEP 94	24 SEP 94	
Molybdenum	ND	mg/kg	10.9	6010	23 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	16.3	6010	23 SEP 94	28 SEP 94	
Potassium	3100	mg/kg	544	6010	23 SEP 94	28 SEP 94	
Selenium	0.88	mg/kg	0.50	7740	23 SEP 94	27 SEP 94	
Silver	ND	mg/kg	5.4	6010	23 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	544	6010	23 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	23 SEP 94	24 SEP 94	
Vanadium	19.1	mg/kg	10.9	6010	23 SEP 94	28 SEP 94	
Zinc	33.4	mg/kg	2.2	6010	23 SEP 94	28 SEP 94	

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

Note R : Raised reporting limit(s) due to high analyte level(s).

ND = Not detected
NA = Not applicable

Reported By: Don Carney Approved By: Mei Lai

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Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 00130001 (6.00,9.00,)
Lab ID: 077730-0007-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 14 SEP 94
Prepared: See Below

Received: 17 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	10500	mg/kg	54.2	6010	23 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	16.3	6010	23 SEP 94	28 SEP 94	
Arsenic	4.2	mg/kg	2.0	7060	23 SEP 94	28 SEP 94	1
Barium	140	mg/kg	10.8	6010	23 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	23 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.54	6010	23 SEP 94	28 SEP 94	
Calcium	36500	mg/kg	108	6010	23 SEP 94	28 SEP 94	
Chromium	9.8	mg/kg	5.4	6010	23 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.4	6010	23 SEP 94	28 SEP 94	
Copper	7.6	mg/kg	5.4	6010	23 SEP 94	28 SEP 94	
Iron	10900	mg/kg	5.4	6010	23 SEP 94	28 SEP 94	
Lead	7.1	mg/kg	1.0	7421	23 SEP 94	27 SEP 94	R
Magnesium	4030	mg/kg	108	6010	23 SEP 94	28 SEP 94	
Manganese	242	mg/kg	2.2	6010	23 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	23 SEP 94	23 SEP 94	
Molybdenum	ND	mg/kg	10.8	6010	23 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	16.3	6010	23 SEP 94	28 SEP 94	
Potassium	2060	mg/kg	542	6010	23 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	1.0	7740	23 SEP 94	28 SEP 94	pq
Silver	ND	mg/kg	5.4	6010	23 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	542	6010	23 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	23 SEP 94	24 SEP 94	
Vanadium	19.5	mg/kg	10.8	6010	23 SEP 94	28 SEP 94	
Zinc	28.6	mg/kg	2.2	6010	23 SEP 94	28 SEP 94	

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note R : Raised reporting limit(s) due to high analyte level(s).

Note p : Reporting limit raised due to a dilution necessitated by initial post-digestion spike recovery of less than 40% due to matrix interference.

Note q : Post-digestion spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 00250001 (0.00,3.00,)
Lab ID: 077730-0008-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 14 SEP 94 Received: 17 SEP 94
Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	12800	mg/kg	53.2	6010	23 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	15.9	6010	23 SEP 94	28 SEP 94	
Arsenic	5.3	mg/kg	2.0	7060	23 SEP 94	29 SEP 94	1
Barium	155	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	23 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.53	6010	23 SEP 94	28 SEP 94	
Calcium	34100	mg/kg	106	6010	23 SEP 94	28 SEP 94	
Chromium	11.2	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Cobalt	5.9	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Copper	10.0	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Iron	12400	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Lead	10.0	mg/kg	1.0	7421	23 SEP 94	26 SEP 94	R
Magnesium	4520	mg/kg	106	6010	23 SEP 94	28 SEP 94	
Manganese	265	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	23 SEP 94	23 SEP 94	
Molybdenum	ND	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	15.9	6010	23 SEP 94	28 SEP 94	
Potassium	3240	mg/kg	532	6010	23 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	1.0	7740	23 SEP 94	28 SEP 94	p
Silver	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	532	6010	23 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	23 SEP 94	24 SEP 94	
Vanadium	19.4	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Zinc	34.9	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note R : Raised reporting limit(s) due to high analyte level(s).

Note p : Reporting limit raised due to a dilution necessitated by initial post-digestion spike recovery of less than 40% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

I-472

Valterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 00350001 (0.00,3.00,)
Lab ID: 077730-0009-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 14 SEP 94
Prepared: See Below

Received: 17 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	11200	mg/kg	52.7	6010	23 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	15.8	6010	23 SEP 94	28 SEP 94	
Arsenic	4.1	mg/kg	2.0	7060	23 SEP 94	29 SEP 94	1
Barium	169	mg/kg	10.5	6010	23 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	23 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.53	6010	23 SEP 94	28 SEP 94	
Calcium	34300	mg/kg	105	6010	23 SEP 94	28 SEP 94	
Chromium	10.4	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Copper	10.0	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Iron	11500	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Lead	11.3	mg/kg	1.0	7421	23 SEP 94	26 SEP 94	R
Magnesium	4380	mg/kg	105	6010	23 SEP 94	28 SEP 94	
Manganese	272	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	23 SEP 94	23 SEP 94	
Molybdenum	ND	mg/kg	10.5	6010	23 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	15.8	6010	23 SEP 94	28 SEP 94	
Potassium	3510	mg/kg	527	6010	23 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	1.0	7740	23 SEP 94	28 SEP 94	pq
Silver	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	527	6010	23 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	23 SEP 94	24 SEP 94	
Vanadium	16.9	mg/kg	10.5	6010	23 SEP 94	28 SEP 94	
Zinc	34.5	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note R : Raised reporting limit(s) due to high analyte level(s).

Note p : Reporting limit raised due to a dilution necessitated by initial post-digestion spike recovery of less than 40% due to matrix interference.

Note q : Post-digestion spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 01360001 (2.50,6.00,)
Lab ID: 077730-0010-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 15 SEP 94
Prepared: See Below

Received: 21 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	6760	mg/kg	51.9	6010	23 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	15.6	6010	23 SEP 94	28 SEP 94	
Arsenic	2.3	mg/kg	2.1	7060	23 SEP 94	29 SEP 94	1
Barium	99.9	mg/kg	10.4	6010	23 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.0	6010	23 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.52	6010	23 SEP 94	28 SEP 94	
Calcium	30600	mg/kg	104	6010	23 SEP 94	28 SEP 94	
Chromium	6.0	mg/kg	5.2	6010	23 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.2	6010	23 SEP 94	28 SEP 94	
Copper	5.3	mg/kg	5.2	6010	23 SEP 94	28 SEP 94	
Iron	6660	mg/kg	5.2	6010	23 SEP 94	28 SEP 94	
Lead	4.7	mg/kg	0.52	7421	23 SEP 94	24 SEP 94	
Magnesium	2510	mg/kg	104	6010	23 SEP 94	28 SEP 94	
Manganese	109	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.10	7471	23 SEP 94	23 SEP 94	
Molybdenum	ND	mg/kg	10.4	6010	23 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	15.6	6010	23 SEP 94	28 SEP 94	
Potassium	1370	mg/kg	519	6010	23 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	1.0	7740	23 SEP 94	28 SEP 94	G
Silver	ND	mg/kg	5.2	6010	23 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	519	6010	23 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	23 SEP 94	24 SEP 94	
Vanadium	11.1	mg/kg	10.4	6010	23 SEP 94	28 SEP 94	
Zinc	18.2	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	

Percent Moisture is 4%. All results and limits are reported on a dry weight basis.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note G : Reporting Limit raised due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 01400001 (2.50,6.00,)
Lab ID: 077730-0011-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 15 SEP 94
Prepared: See Below

Received: 21 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	8010	mg/kg	54.7	6010	23 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	16.4	6010	23 SEP 94	28 SEP 94	
Arsenic	4.3	mg/kg	2.2	7060	23 SEP 94	28 SEP 94	1
Barium	135	mg/kg	10.9	6010	23 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	23 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.55	6010	23 SEP 94	28 SEP 94	
Calcium	34900	mg/kg	109	6010	23 SEP 94	28 SEP 94	
Chromium	7.6	mg/kg	5.5	6010	23 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.5	6010	23 SEP 94	28 SEP 94	
Copper	ND	mg/kg	5.5	6010	23 SEP 94	28 SEP 94	
Iron	8010	mg/kg	5.5	6010	23 SEP 94	28 SEP 94	
Lead	5.8	mg/kg	0.55	7421	23 SEP 94	24 SEP 94	
Magnesium	2900	mg/kg	109	6010	23 SEP 94	28 SEP 94	
Manganese	143	mg/kg	2.2	6010	23 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.11	7471	23 SEP 94	23 SEP 94	
Molybdenum	ND	mg/kg	10.9	6010	23 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	16.4	6010	23 SEP 94	28 SEP 94	
Potassium	1840	mg/kg	547	6010	23 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	1.1	7740	23 SEP 94	28 SEP 94	G
Silver	ND	mg/kg	5.5	6010	23 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	547	6010	23 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	23 SEP 94	24 SEP 94	
Vanadium	14.9	mg/kg	10.9	6010	23 SEP 94	28 SEP 94	
Zinc	22.1	mg/kg	2.2	6010	23 SEP 94	28 SEP 94	

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note G : Reporting Limit raised due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 02150001 (2.50,5.00,)
Lab ID: 077730-0012-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 15 SEP 94
Prepared: See Below

Received: 21 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	5280	mg/kg	53.2	6010	23 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	16.0	6010	23 SEP 94	28 SEP 94	
Arsenic	2.5	mg/kg	2.1	7060	23 SEP 94	29 SEP 94	1
Barium	117	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	23 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.53	6010	23 SEP 94	28 SEP 94	
Calcium	57100	mg/kg	106	6010	23 SEP 94	28 SEP 94	
Chromium	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Copper	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Iron	5370	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Lead	3.3	mg/kg	0.53	7421	23 SEP 94	24 SEP 94	
Magnesium	2080	mg/kg	106	6010	23 SEP 94	28 SEP 94	
Manganese	71.1	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.11	7471	23 SEP 94	23 SEP 94	
Molybdenum	ND	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	16.0	6010	23 SEP 94	28 SEP 94	
Potassium	913	mg/kg	532	6010	23 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	1.1	7740	23 SEP 94	28 SEP 94	G
Silver	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	532	6010	23 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	23 SEP 94	24 SEP 94	
Vanadium	ND	mg/kg	10.6	6010	23 SEP 94	28 SEP 94	
Zinc	13.6	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

Note 1 : Reporting limit raised as a dilution was performed because the initial post-digest spike recovery fell between 40% and 85% due to matrix interference.

Note G : Reporting Limit raised due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
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Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 02250001 (3.00,6.00,)
Lab ID: 077730-0013-SA
Matrix: SOIL
Authorized: 17 SEP 94

Sampled: 15 SEP 94
Prepared: See Below

Received: 21 SEP 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	7500	mg/kg	52.5	6010	23 SEP 94	28 SEP 94	
Antimony	ND	mg/kg	15.8	6010	23 SEP 94	28 SEP 94	
Arsenic	3.1	mg/kg	0.53	7060	23 SEP 94	26 SEP 94	
Barium	95.2	mg/kg	10.5	6010	23 SEP 94	28 SEP 94	
Beryllium	ND	mg/kg	1.1	6010	23 SEP 94	28 SEP 94	
Cadmium	ND	mg/kg	0.53	6010	23 SEP 94	28 SEP 94	
Calcium	21200	mg/kg	105	6010	23 SEP 94	28 SEP 94	
Chromium	8.0	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Cobalt	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Copper	6.1	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Iron	7710	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Lead	4.9	mg/kg	0.53	7421	23 SEP 94	24 SEP 94	
Magnesium	2490	mg/kg	105	6010	23 SEP 94	28 SEP 94	
Manganese	136	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	
Mercury	ND	mg/kg	0.11	7471	23 SEP 94	23 SEP 94	
Molybdenum	ND	mg/kg	10.5	6010	23 SEP 94	28 SEP 94	
Nickel	ND	mg/kg	15.8	6010	23 SEP 94	28 SEP 94	
Potassium	1690	mg/kg	525	6010	23 SEP 94	28 SEP 94	
Selenium	ND	mg/kg	1.1	7740	23 SEP 94	28 SEP 94	G
Silver	ND	mg/kg	5.3	6010	23 SEP 94	28 SEP 94	
Sodium	ND	mg/kg	525	6010	23 SEP 94	28 SEP 94	
Thallium	ND	mg/kg	0.50	7841	23 SEP 94	24 SEP 94	
Vanadium	11.9	mg/kg	10.5	6010	23 SEP 94	28 SEP 94	
Zinc	21.2	mg/kg	2.1	6010	23 SEP 94	28 SEP 94	

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

Note G : Reporting Limit raised due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Don Carney

Approved By: Mei Lai

The cover letter is an integral part of this report.
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Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077730-0001-SA	SOIL	7471-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0001-SA	SOIL	7421-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0001-SA	SOIL	7060-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0001-SA	SOIL	7740-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0001-SA	SOIL	ICP-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0001-SA	SOIL	7841-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0002-SA	SOIL	7471-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0002-SA	SOIL	7421-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0002-SA	SOIL	7060-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0002-SA	SOIL	7740-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0002-SA	SOIL	ICP-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0002-SA	SOIL	7841-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0003-SA	SOIL	7471-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0003-SA	SOIL	7421-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0003-SA	SOIL	7060-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0003-SA	SOIL	7740-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0003-SA	SOIL	ICP-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0003-SA	SOIL	7841-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0004-SA	SOIL	7471-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0004-SA	SOIL	7421-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0004-SA	SOIL	7060-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0004-SA	SOIL	7740-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0004-SA	SOIL	ICP-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0004-SA	SOIL	7841-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0005-SA	SOIL	7471-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0005-SA	SOIL	7421-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0005-SA	SOIL	7060-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0005-SA	SOIL	7740-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0005-SA	SOIL	ICP-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0005-SA	SOIL	7841-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0006-SA	SOIL	7471-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0006-SA	SOIL	7421-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0006-SA	SOIL	7060-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0006-SA	SOIL	7740-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0006-SA	SOIL	ICP-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0006-SA	SOIL	7841-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0007-SA	SOIL	7471-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0007-SA	SOIL	7421-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0007-SA	SOIL	7060-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0007-SA	SOIL	7740-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0007-SA	SOIL	ICP-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0007-SA	SOIL	7841-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0008-SA	SOIL	7471-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0008-SA	SOIL	7421-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0008-SA	SOIL	7060-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0008-SA	SOIL	7740-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0008-SA	SOIL	ICP-IRP-S	23 SEP 94-BX	23 SEP 94-BX

Quanterra Environmental Services

QC LOT ASSIGNMENT REPORT
Metals Analysis and Preparation (cont.)

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077730-0008-SA	SOIL	7841-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0009-SA	SOIL	7471-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0009-SA	SOIL	7421-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0009-SA	SOIL	7060-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0009-SA	SOIL	7740-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0009-SA	SOIL	ICP-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0009-SA	SOIL	7841-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0010-SA	SOIL	7471-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0010-SA	SOIL	7421-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0010-SA	SOIL	7060-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0010-SA	SOIL	7740-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0010-SA	SOIL	ICP-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0010-SA	SOIL	7841-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0011-SA	SOIL	7471-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0011-SA	SOIL	7421-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0011-SA	SOIL	7060-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0011-SA	SOIL	7740-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0011-SA	SOIL	ICP-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0011-SA	SOIL	7841-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0012-SA	SOIL	7471-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0012-SA	SOIL	7421-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0012-SA	SOIL	7060-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0012-SA	SOIL	7740-IRP-S	22 SEP 94-BX	23 SEP 94-BX
077730-0012-SA	SOIL	ICP-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0012-SA	SOIL	7841-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0013-SA	SOIL	7471-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0013-SA	SOIL	7421-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0013-SA	SOIL	7060-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0013-SA	SOIL	7740-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0013-SA	SOIL	ICP-IRP-S	23 SEP 94-BX	23 SEP 94-BX
077730-0013-SA	SOIL	7841-IRP-S	23 SEP 94-BX	23 SEP 94-BX

Quanterra Environmental Services

METHOD BLANK REPORT
Metals Analysis and Preparation

Analyte	Result	Units	Reporting Limit
Test: HG-CVAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Mercury	ND	mg/kg	0.10
Test: PB-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Lead	ND	mg/kg	0.50
Test: AS-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Arsenic	ND	mg/kg	0.50
Test: SE-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Selenium	ND	mg/kg	0.50
Test: ICP-IRPMS-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Aluminum	ND	mg/kg	50.0
Antimony	ND	mg/kg	15.0
Barium	ND	mg/kg	10.0
Beryllium	ND	mg/kg	1.0
Cadmium	ND	mg/kg	0.50
Calcium	ND	mg/kg	100
Chromium	ND	mg/kg	5.0
Cobalt	ND	mg/kg	5.0
Copper	ND	mg/kg	5.0
Iron	ND	mg/kg	5.0
Magnesium	ND	mg/kg	100
Manganese	ND	mg/kg	2.0
Molybdenum	ND	mg/kg	10.0

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)

Analyte	Result	Units	Reporting Limit
Test: ICP-IRPMS-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Nickel	ND	mg/kg	15.0
Potassium	ND	mg/kg	500
Silver	ND	mg/kg	5.0
Sodium	ND	mg/kg	500
Vanadium	ND	mg/kg	10.0
Zinc	ND	mg/kg	2.0
Test: TL-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Thallium	ND	mg/kg	0.50
Test: HG-CVAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Mercury	ND	mg/kg	0.10
Test: PB-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Lead	ND	mg/kg	0.50
Test: AS-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Arsenic	ND	mg/kg	0.50

Quanterra Environmental Services

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)

Analyte	Result	Units	Reporting Limit
Test: SE-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Selenium	ND	mg/kg	0.50
Test: ICP-IRPMS-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Aluminum	ND	mg/kg	50.0
Antimony	ND	mg/kg	15.0
Barium	ND	mg/kg	10.0
Beryllium	ND	mg/kg	1.0
Cadmium	ND	mg/kg	0.50
Calcium	ND	mg/kg	100
Chromium	ND	mg/kg	5.0
Cobalt	ND	mg/kg	5.0
Copper	ND	mg/kg	5.0
Iron	ND	mg/kg	5.0
Magnesium	ND	mg/kg	100
Manganese	ND	mg/kg	2.0
Molybdenum	ND	mg/kg	10.0
Nickel	ND	mg/kg	15.0
Potassium	ND	mg/kg	500
Silver	ND	mg/kg	5.0
Sodium	ND	mg/kg	500
Vanadium	ND	mg/kg	10.0
Zinc	ND	mg/kg	2.0
Test: TL-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Thallium	ND	mg/kg	0.50

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)

Analyte	Result	Units	Reporting Limit
Test: ICP-IRPMS-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Nickel	ND	mg/kg	15.0
Potassium	ND	mg/kg	500
Silver	ND	mg/kg	5.0
Sodium	ND	mg/kg	500
Vanadium	ND	mg/kg	10.0
Zinc	ND	mg/kg	2.0
Test: TL-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Thallium	ND	mg/kg	0.50
Test: HG-CVAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Mercury	ND	mg/kg	0.10
Test: PB-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Lead	ND	mg/kg	0.50
Test: AS-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Arsenic	ND	mg/kg	0.50

Quanterra Environmental Services

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)

Analyte	Result	Units	Reporting Limit
Test: SE-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Selenium	ND	mg/kg	0.50
Test: ICP-IRPMS-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Aluminum	ND	mg/kg	50.0
Antimony	ND	mg/kg	15.0
Barium	ND	mg/kg	10.0
Beryllium	ND	mg/kg	1.0
Cadmium	ND	mg/kg	0.50
Calcium	ND	mg/kg	100
Chromium	ND	mg/kg	5.0
Cobalt	ND	mg/kg	5.0
Copper	ND	mg/kg	5.0
Iron	ND	mg/kg	5.0
Magnesium	ND	mg/kg	100
Manganese	ND	mg/kg	2.0
Molybdenum	ND	mg/kg	10.0
Nickel	ND	mg/kg	15.0
Potassium	ND	mg/kg	500
Silver	ND	mg/kg	5.0
Sodium	ND	mg/kg	500
Vanadium	ND	mg/kg	10.0
Zinc	ND	mg/kg	2.0
Test: TL-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX			
Thallium	ND	mg/kg	0.50

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 077730

Category: 7471-IRP-S Mercury by CVAA
STATIC QC LIMITS - DO NOT UPDATE

Matrix: SOIL
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Mercury	32.0	35.2	110	75-125

Category: 7421-IRP-S Lead, Furnace AA
STATIC QC LIMTS - DO NOT UPDATE

Matrix: SOIL
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Lead	50.9	49.6	98	65-135

Category: 7060-IRP-S Arsenic, Furnace AA
STATIC QC LIMTS - DO NOT UPDATE

Matrix: SOIL
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Arsenic	72.1	87.2	121	75-125

Category: 7740-IRP-S Selenium, Furnace AA
STATIC QC LIMITS - DO NOT UPDATE

Matrix: SOIL
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Selenium	74.2	69.2	93	70-130

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

LABORATORY CONTROL SAMPLE REPORT (cont.)
Metals Analysis and Preparation
Project: 077730

Category: ICP-IRP-S ICP Metals
STATIC QC LIMITS - DO NOT UPDATE

Matrix: SOIL
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Aluminum	3650	3690	101	75-140
Antimony	75.0	68.3	91	50-150
Arsenic	72.1	73.4	102	75-125
Barium	64.8	67.8	105	75-125
Beryllium	26.7	28.8	108	75-125
Calcium	2330	2420	104	75-125
Cadmium	61.6	63.0	102	75-125
Chromium	44.1	45.6	103	75-125
Copper	78.1	81.3	104	75-125
Cobalt	177	188	106	75-125
Iron	7360	7680	104	75-125
Magnesium	2550	2650	104	75-125
Manganese	141	144	102	75-125
Molybdenum	104	109	105	75-125
Potassium	3310	3480	105	75-125
Lead	50.9	54.1	106	75-125
Nickel	110	119	108	75-125
Selenium	74.2	80.6	109	60-140
Silver	71.7	70.6	99	75-125
Sodium	346	333	96	75-125
Thallium	64.1	58.6	91	75-125
Vanadium	83.0	84.0	101	75-125
Zinc	78.2	80.1	102	75-125

Category: 7841-IRF-S Thallium, Furnace AA
STATIC QC LIMITS - DO NOT UPDATE

Matrix: SOIL
QC Lot: 23 SEP 94-BX QC Run: 23 SEP 94-BX
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Thallium	64.1	65.7	103	65-135

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 00460001 (3.00,6.00,)
Lab ID: 077730-0001-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.53	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	2.5	mg/kg	0.26	353.2 Modified	10 OCT 94	10 OCT 94

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

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Quanterra Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 00470001 (3.00,6.00,)
Lab ID: 077730-0002-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.53	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	5.6	mg/kg	0.26	353.2 Modified	10 OCT 94	10 OCT 94

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

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Quanterra
Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 00470002 (3.00,6.00,)
Lab ID: 077730-0003-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.53	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	6.3	mg/kg	0.26	353.2 Modified	10 OCT 94	10 OCT 94

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

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Quanterra
Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 00490001 (3.00,6.00,)
Lab ID: 077730-0004-SA
Matrix: SOIL Sampled: 12 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.53	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	2.1	mg/kg	0.26	353.2 Modified	10 OCT 94	10 OCT 94

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

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Quanterra
Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 00760001 (3.00,6.00,)
Lab ID: 077730-0005-SA
Matrix: SOIL Sampled: 13 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.53	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	3.7	mg/kg	0.26	353.2 Modified	10 OCT 94	10 OCT 94

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

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GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 00090001 (3.00,6.00,)
Lab ID: 077730-0006-SA
Matrix: SOIL Sampled: 14 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.54	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	3.7	mg/kg	0.27	353.2 Modified	10 OCT 94	10 OCT 94

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

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Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 00130001 (6.00,9.00,)
Lab ID: 077730-0007-SA
Matrix: SOIL Sampled: 14 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.54	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	4.8	mg/kg	0.27	353.2 Modified	10 OCT 94	10 OCT 94

Percent Moisture is 8%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

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Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 00250001 (0.00,3.00,)
Lab ID: 077730-0008-SA
Matrix: SOIL Sampled: 14 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.53	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	1.0	mg/kg	0.27	353.2 Modified	10 OCT 94	10 OCT 94

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

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Quanterra
Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 00350001 (0.00,3.00,)
Lab ID: 077730-0009-SA
Matrix: SOIL Sampled: 14 SEP 94 Received: 17 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.53	9012 Modified	19 SEP 94	20 SEP 94
Nitrate + Nitrite (as N)	4.9	mg/kg	0.26	353.2 Modified	10 OCT 94	10 OCT 94

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

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T. 495

Quanterra
Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 01360001 (2.50,6.00,)
Lab ID: 077730-0010-SA
Matrix: SOIL Sampled: 15 SEP 94 Received: 21 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.52	9012 Modified	23 SEP 94	29 SEP 94
Nitrate + Nitrite (as N)	1.4	mg/kg	0.26	353.2 Modified	10 OCT 94	10 OCT 94

Percent Moisture is 4%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

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J-496

Quanterra
Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 02150001 (2.50,5.00,)
Lab ID: 077730-0012-SA
Matrix: SOIL Sampled: 15 SEP 94 Received: 21 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.53	9012 Modified	23 SEP 94	29 SEP 94
Nitrate + Nitrite (as N)	1.0	mg/kg	0.27	353.2 Modified	10 OCT 94	10 OCT 94

Percent Moisture is 6%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

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Quanterra
Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 01400001 (2.50,6.00,)
Lab ID: 077730-0011-SA
Matrix: SOIL Sampled: 15 SEP 94 Received: 21 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.55	9012 Modified	23 SEP 94	29 SEP 94
Nitrate + Nitrite (as N)	4.0	mg/kg	0.27	353.2 Modified	10 OCT 94	10 OCT 94

Percent Moisture is 9%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

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Quanterra
Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 02250001 (3.00,6.00,)
Lab ID: 077730-0013-SA
Matrix: SOIL Sampled: 15 SEP 94 Received: 21 SEP 94
Authorized: 17 SEP 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Cyanide, Total	ND	mg/kg	0.53	9012 Modified	23 SEP 94	29 SEP 94
Nitrate + Nitrite (as N)	0.58	mg/kg	0.26	353.2 Modified	10 OCT 94	10 OCT 94

Percent Moisture is 5%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Hamid Foolad Approved By: Jennifer Kimzey

The cover letter is an integral part of this report.
Rev 230787

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Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
077730-0001-SA	SOIL	NO3&NO2-S	10 OCT 94-A	10 OCT 94-A
077730-0001-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077730-0002-SA	SOIL	NO3&NO2-S	10 OCT 94-A	10 OCT 94-A
077730-0002-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077730-0003-SA	SOIL	NO3&NO2-S	10 OCT 94-A	10 OCT 94-A
077730-0003-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077730-0004-SA	SOIL	NO3&NO2-S	10 OCT 94-A	10 OCT 94-A
077730-0004-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077730-0005-SA	SOIL	NO3&NO2-S	10 OCT 94-A	10 OCT 94-A
077730-0005-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077730-0006-SA	SOIL	NO3&NO2-S	10 OCT 94-A	10 OCT 94-A
077730-0006-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077730-0007-SA	SOIL	NO3&NO2-S	10 OCT 94-A	10 OCT 94-A
077730-0007-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077730-0008-SA	SOIL	NO3&NO2-S	10 OCT 94-A	10 OCT 94-A
077730-0008-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077730-0009-SA	SOIL	NO3&NO2-S	10 OCT 94-A	10 OCT 94-A
077730-0009-SA	SOIL	CN-IRP-S	19 SEP 94-A	19 SEP 94-A
077730-0010-SA	SOIL	NO3&NO2-S	10 OCT 94-A	10 OCT 94-A
077730-0010-SA	SOIL	CN-IRP-S	23 SEP 94-A	23 SEP 94-A
077730-0011-SA	SOIL	NO3&NO2-S	10 OCT 94-A	10 OCT 94-A
077730-0011-SA	SOIL	CN-IRP-S	23 SEP 94-A	23 SEP 94-A
077730-0012-SA	SOIL	NO3&NO2-S	10 OCT 94-A	10 OCT 94-A
077730-0012-SA	SOIL	CN-IRP-S	23 SEP 94-A	23 SEP 94-A
077730-0013-SA	SOIL	NO3&NO2-S	10 OCT 94-A	10 OCT 94-A
077730-0013-SA	SOIL	CN-IRP-S	23 SEP 94-A	23 SEP 94-A

Quanterra
Environmental Services

METHOD BLANK REPORT
Wet Chemistry Analysis and Preparation

Analyte	Result	Units	Reporting Limit
Test: NO3&NO2-S Matrix: SOIL QC Lot: 10 OCT 94-A QC Run: 10 OCT 94-A			
Nitrate + Nitrite (as N)	ND	mg/kg	0.25
Test: CN-9012-IRP-KAFB-S Matrix: SOIL QC Lot: 19 SEP 94-A QC Run: 19 SEP 94-A			
Cyanide, Total	ND	mg/kg	0.50
Test: NO3&NO2-S Matrix: SOIL QC Lot: 10 OCT 94-A QC Run: 10 OCT 94-A			
Nitrate + Nitrite (as N)	ND	mg/kg	0.25
Test: CN-9012-IRP-KAFB-S Matrix: SOIL QC Lot: 19 SEP 94-A QC Run: 19 SEP 94-A			
Cyanide, Total	ND	mg/kg	0.50
Test: CN-9012-IRP-KAFB-S Matrix: SOIL QC Lot: 23 SEP 94-A QC Run: 23 SEP 94-A			
Cyanide, Total	ND	mg/kg	0.50

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 077730

Category: NO3&NO2-S Nitrate plus nitrite for soil/solid/waste matrices.
Matrix: SOIL
QC Lot: 10 OCT 94-A QC Run: 10 OCT 94-A
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Nitrate + Nitrite (as N)	2.50	2.62	105	75-125

Category: CN-IRP-S Cyanide
Matrix: SOIL
QC Lot: 19 SEP 94-A QC Run: 19 SEP 94-A
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Cyanide, Total	5.00	4.90	98	77-115

Category: CN-IRP-S Cyanide
Matrix: SOIL
QC Lot: 23 SEP 94-A QC Run: 23 SEP 94-A
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Cyanide, Total	5.00	4.85	97	77-115

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra Environmental Services

Quanterra Incorporated
880 Riverside Parkway
West Sacramento, California 95605

916 373-5600 Telephone
916 372-1059 Fax

October 31, 1994
QUANTERRA PROJECT NUMBER: 078162
PO/CONTRACT: 006

Jeff Johnson
Gram, Inc.
8500 Menaul Blvd. NE, #B-370
Albuquerque, New Mexico 87112

Dear Mr. Johnson :

This report contains the analytical results for the two soil samples which were received under chain of custody by Quanterra West Sacramento on 13 October 1994. These samples are associated with your Kirtland AFB Project.

The case narrative is an integral part of this report.

Preliminary results were sent via facsimile on 19 and 31 October 1994.

If you have any questions, please call me at (916) 374-4362.

Sincerely,

Diana L. Brooks
Project Manager

DLB/rhs

Enclosures

T-503

Quanterra
Environmental Services

TABLE OF CONTENTS

QUANTERRA PROJECT NUMBER 078162

CASE NARRATIVE

QUANTERRA PROJECT NUMBER 078162

General Comments

A temperature blank was not associated with this batch of samples. The ambient cooler temperature was recorded as 4.0 deg C.

There were no anomalies associated with this report.

Quanterra
Environmental Services

QUANTERRA'S QUALITY ASSURANCE PROGRAM

Quanterra has implemented an extensive Quality Assurance (QA) program to ensure the production of scientifically sound, legally defensible data of known documentable quality. A key element of this program is Quanterra's Laboratory Control Sample (LCS) system. Controlling lab operations with LCS (as opposed to matrix spike/matrix spike duplicate samples), allows the lab to differentiate between bias as a result of procedural errors versus bias due to matrix effects. The analyst can then identify and implement the appropriate corrective actions at the bench level, without waiting for extensive senior level review or costly and time-consuming sample re-analyses. The LCS program also provides our client with information to assess batch, and overall laboratory performance.

Laboratory Control Samples - (LCS)

Laboratory Control Samples (LCS) are well-characterized, laboratory generated samples used to monitor the laboratory's day-to-day performance of routine analytical methods. The results of the LCS are compared to well-defined laboratory acceptance criteria to determine whether the laboratory system is "in control". Three types of LCS are routinely analyzed: Duplicate Control Samples (DCS), Single Control Samples (SCS), and method blanks. Each of these LCS are described below.

Duplicate Control Samples. A DCS is a well-characterized matrix (blank water, sand, sodium sulfate or celite) which is spiked with certain target parameters and analyzed at approximately 10% of the sample load in order to establish method-specific control limits.

Single Control Samples. An SCS consists of a control matrix that is spiked with surrogate compounds appropriate to the method being used. In cases where no surrogate is available, (e.g. metals or conventional analyses) a single control sample identical to the DCS serves as the control sample. An SCS is prepared for each sample lot. Accuracy is calculated identically to the DCS.

Method Blank Results. A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your samples.

SAMPLE DESCRIPTION INFORMATION
for
Gram, Inc.

Lab ID	Client ID		Matrix	Sampled Date	Sampled Time	Received Date
078162-0001-SA	03110001	(1.50,2.00,)	SOIL	12 OCT 94	09:45	13 OCT 94
078162-0002-SA	03120001	(2.00,3.50,)	SOIL	12 OCT 94	10:10	13 OCT 94

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	1	1	1	1			
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	G	P	VOA	G			
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	1000						
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4C						
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED							
KRTLD154 - [illegible]	S	10/11/94 0914		✓		✓	✓	✓	
KRTLD154 - [illegible]	S	10/11/94 1010		✓		✓	✓	✓	
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									

MATRIX:
S - SOIL*
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

Samples recd in good condition
@ 10/13/94
Ambient temp = 4.0
@ 10/13/94

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
LATA	[illegible]	GRAM, Inc	[illegible]	10/13/94	1121

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
		Quanterra	[illegible]	10/13/94	0900

Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 03110001 (1.50,2.00,)
Lab ID: 078162-0001-SA
Matrix: SOIL
Authorized: 13 OCT 94

Sampled: 12 OCT 94
Prepared: See Below

Received: 13 OCT 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	7940	mg/kg	52.6	6010	13 OCT 94	14 OCT 94	
Antimony	ND	mg/kg	15.8	6010	13 OCT 94	14 OCT 94	
Arsenic	2.2	mg/kg	0.53	7060	13 OCT 94	14 OCT 94	
Barium	127	mg/kg	10.5	6010	13 OCT 94	14 OCT 94	
Beryllium	ND	mg/kg	1.1	6010	13 OCT 94	14 OCT 94	
Cadmium	ND	mg/kg	0.53	6010	13 OCT 94	14 OCT 94	
Calcium	53100	mg/kg	105	6010	13 OCT 94	14 OCT 94	
Chromium	8.5	mg/kg	5.3	6010	13 OCT 94	14 OCT 94	
Cobalt	ND	mg/kg	5.3	6010	13 OCT 94	14 OCT 94	
Copper	5.6	mg/kg	5.3	6010	13 OCT 94	14 OCT 94	
Iron	8210	mg/kg	5.3	6010	13 OCT 94	14 OCT 94	
Lead	4.0	mg/kg	0.53	7421	13 OCT 94	13 OCT 94	
Magnesium	3310	mg/kg	105	6010	13 OCT 94	14 OCT 94	
Manganese	116	mg/kg	2.1	6010	13 OCT 94	14 OCT 94	
Mercury	ND	mg/kg	0.11	7471	13 OCT 94	14 OCT 94	
Molybdenum	ND	mg/kg	10.5	6010	13 OCT 94	14 OCT 94	
Nickel	ND	mg/kg	15.8	6010	13 OCT 94	14 OCT 94	
Potassium	1450	mg/kg	526	6010	13 OCT 94	14 OCT 94	
Selenium	ND	mg/kg	0.53	7740	13 OCT 94	14 OCT 94	q
Silver	ND	mg/kg	5.3	6010	13 OCT 94	14 OCT 94	
Sodium	ND	mg/kg	526	6010	13 OCT 94	14 OCT 94	
Thallium	ND	mg/kg	0.50	7841	13 OCT 94	13 OCT 94	
Vanadium	17.3	mg/kg	10.5	6010	13 OCT 94	14 OCT 94	
Zinc	18.8	mg/kg	2.1	6010	13 OCT 94	14 OCT 94	

Percent Moisture is 4.9%. All results and limits are reported on a dry weight basis.

Note q : Post-digestion spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Keith Varvell

Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

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Quanterra Environmental Services

METALS

(Soil/Solid - Total)

Client Name: Gram, Inc.
Client ID: 03120001 (2.00,3.50,)
Lab ID: 078162-0002-SA
Matrix: SOIL
Authorized: 13 OCT 94

Sampled: 12 OCT 94
Prepared: See Below

Received: 13 OCT 94
Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date	
Aluminum	6120	mg/kg	52.9	6010	13 OCT 94	14 OCT 94	
Antimony	ND	mg/kg	15.9	6010	13 OCT 94	14 OCT 94	
Arsenic	2.2	mg/kg	0.53	7060	13 OCT 94	14 OCT 94	
Barium	128	mg/kg	10.6	6010	13 OCT 94	14 OCT 94	
Beryllium	ND	mg/kg	1.1	6010	13 OCT 94	14 OCT 94	
Cadmium	ND	mg/kg	0.53	6010	13 OCT 94	14 OCT 94	
Calcium	58100	mg/kg	106	6010	13 OCT 94	14 OCT 94	
Chromium	6.0	mg/kg	5.3	6010	13 OCT 94	14 OCT 94	
Cobalt	ND	mg/kg	5.3	6010	13 OCT 94	14 OCT 94	
Copper	ND	mg/kg	5.3	6010	13 OCT 94	14 OCT 94	
Iron	6230	mg/kg	5.3	6010	13 OCT 94	14 OCT 94	
Lead	2.9	mg/kg	0.53	7421	13 OCT 94	13 OCT 94	
Magnesium	2730	mg/kg	106	6010	13 OCT 94	14 OCT 94	
Manganese	71.8	mg/kg	2.1	6010	13 OCT 94	14 OCT 94	
Mercury	ND	mg/kg	0.11	7471	13 OCT 94	14 OCT 94	
Molybdenum	ND	mg/kg	10.6	6010	13 OCT 94	14 OCT 94	
Nickel	ND	mg/kg	15.9	6010	13 OCT 94	14 OCT 94	
Potassium	864	mg/kg	529	6010	13 OCT 94	14 OCT 94	
Selenium	ND	mg/kg	0.53	7740	13 OCT 94	14 OCT 94	q
Silver	ND	mg/kg	5.3	6010	13 OCT 94	14 OCT 94	
Sodium	ND	mg/kg	529	6010	13 OCT 94	14 OCT 94	
Thallium	ND	mg/kg	0.50	7841	13 OCT 94	13 OCT 94	
Vanadium	14.7	mg/kg	10.6	6010	13 OCT 94	14 OCT 94	
Zinc	13.6	mg/kg	2.1	6010	13 OCT 94	14 OCT 94	

Percent Moisture is 5.4%. All results and limits are reported on a dry weight basis.

Note q : Post-digestion spike recovery fell between 40% and 85% due to matrix interference.

ND = Not detected
NA = Not applicable

Reported By: Keith Varvell

Approved By: Mei Lai

The cover letter is an integral part of this report.
Rev 230787

Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Metals Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
078162-0001-SA	SOIL	7471-IRP-S	13 OCT 94-T	13 OCT 94-T
078162-0001-SA	SOIL	7421-IRP-S	13 OCT 94-B	13 OCT 94-B
078162-0001-SA	SOIL	7060-IRP-S	13 OCT 94-B	13 OCT 94-B
078162-0001-SA	SOIL	7740-IRP-S	13 OCT 94-BX	13 OCT 94-BX
078162-0001-SA	SOIL	ICP-IRP-S	13 OCT 94-B	13 OCT 94-B
078162-0001-SA	SOIL	7841-IRP-S	13 OCT 94-BX	13 OCT 94-BX
078162-0002-SA	SOIL	7471-IRP-S	13 OCT 94-T	13 OCT 94-T
078162-0002-SA	SOIL	7421-IRP-S	13 OCT 94-B	13 OCT 94-B
078162-0002-SA	SOIL	7060-IRP-S	13 OCT 94-B	13 OCT 94-B
078162-0002-SA	SOIL	7740-IRP-S	13 OCT 94-BX	13 OCT 94-BX
078162-0002-SA	SOIL	ICP-IRP-S	13 OCT 94-B	13 OCT 94-B
078162-0002-SA	SOIL	7841-IRP-S	13 OCT 94-BX	13 OCT 94-BX

Quanterra
Environmental Services

METHOD BLANK REPORT
Metals Analysis and Preparation (cont.)

Analyte	Result	Units	Reporting Limit
Test: ICP-IRPMS-S			
Matrix: SOIL			
QC Lot: 13 OCT 94-B QC Run: 13 OCT 94-B			
Nickel	ND	mg/kg	15.0
Potassium	ND	mg/kg	500
Silver	ND	mg/kg	5.0
Sodium	ND	mg/kg	500
Vanadium	ND	mg/kg	10.0
Zinc	ND	mg/kg	2.0
Test: TL-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 13 OCT 94-BX QC Run: 13 OCT 94-BX			
Thallium	ND	mg/kg	0.50

Quanterra Environmental Services

METHOD BLANK REPORT
Metals Analysis and Preparation

Analyte	Result	Units	Reporting Limit
Test: HG-CVAA-IRP-S			
Matrix: SOIL			
QC Lot: 13 OCT 94-T QC Run: 13 OCT 94-T			
Mercury	ND	mg/kg	0.10
Test: PB-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 13 OCT 94-B QC Run: 13 OCT 94-B			
Lead	ND	mg/kg	0.50
Test: AS-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 13 OCT 94-B QC Run: 13 OCT 94-B			
Arsenic	ND	mg/kg	0.50
Test: SE-FAA-IRP-S			
Matrix: SOIL			
QC Lot: 13 OCT 94-BX QC Run: 13 OCT 94-BX			
Selenium	ND	mg/kg	0.50
Test: ICP-IRPMS-S			
Matrix: SOIL			
QC Lot: 13 OCT 94-B QC Run: 13 OCT 94-B			
Aluminum	ND	mg/kg	50.0
Antimony	ND	mg/kg	15.0
Barium	ND	mg/kg	10.0
Beryllium	ND	mg/kg	1.0
Cadmium	ND	mg/kg	0.50
Calcium	ND	mg/kg	100
Chromium	ND	mg/kg	5.0
Cobalt	ND	mg/kg	5.0
Copper	ND	mg/kg	5.0
Iron	ND	mg/kg	5.0
Magnesium	ND	mg/kg	100
Manganese	ND	mg/kg	2.0
Molybdenum	ND	mg/kg	10.0

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 078162

(cont.)

Category: ICP-IRP-S ICP Metals
STATIC QC LIMITS - DO NOT UPDATE

Matrix: SOIL
QC Lot: 13 OCT 94-B QC Run: 13 OCT 94-B
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Aluminum	3650	4120	113	75-140
Antimony	75.0	69.9	93	50-150
Arsenic	72.1	80.2	111	75-125
Barium	64.8	70.5	109	75-125
Beryllium	26.7	31.6	118	75-125
Calcium	2330	2530	108	75-125
Cadmium	61.6	64.5	105	75-125
Chromium	44.1	48.7	110	75-125
Copper	78.1	83.3	107	75-125
Cobalt	177	202	114	75-125
Iron	7360	8880	121	75-125
Magnesium	2550	2690	106	75-125
Manganese	141	156	110	75-125
Molybdenum	104	112	108	75-125
Potassium	3310	3360	101	75-125
Lead	50.9	53.5	105	75-125
Nickel	110	123	112	75-125
Selenium	74.2	80.4	108	60-140
Silver	71.7	72.7	101	75-125
Sodium	346	363	105	75-125
Thallium	64.1	69.8	109	75-125
Vanadium	83.0	89.2	107	75-125
Zinc	78.2	81.4	104	75-125

Category: 7841-IRP-S Thallium, Furnace AA
STATIC QC LIMITS - DO NOT UPDATE

Matrix: SOIL
QC Lot: 13 OCT 94-BX QC Run: 13 OCT 94-BX
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Thallium	64.1	74.0	115	65-135

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE REPORT
Metals Analysis and Preparation
Project: 078162

Category: 7471-IRP-S Mercury by CVAA
STATIC QC LIMITS - DO NOT UPDATE

Matrix: SOIL
QC Lot: 13 OCT 94-T QC Run: 13 OCT 94-T
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Mercury	32.0	29.6	93	75-125

Category: 7421-IRP-S Lead, Furnace AA
STATIC QC LIMTS - DO NOT UPDATE

Matrix: SOIL
QC Lot: 13 OCT 94-B QC Run: 13 OCT 94-B
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Lead	50.9	48.4	95	65-135

Category: 7060-IRP-S Arsenic, Furnace AA
STATIC QC LIMTS - DO NOT UPDATE

Matrix: SOIL
QC Lot: 13 OCT 94-B QC Run: 13 OCT 94-B
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Arsenic	72.1	90.2	125	75-125

Category: 7740-IRP-S Selenium, Furnace AA
STATIC QC LIMITS - DO NOT UPDATE

Matrix: SOIL
QC Lot: 13 OCT 94-BX QC Run: 13 OCT 94-BX
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured	Accuracy(%) LCS	Limits
Selenium	74.2	85.0	115	70-130

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

GENERAL INORGANICS

(Soil/Solid)

Client Name: Gram, Inc.
Client ID: 03110001 (1.50,2.00,)
Lab ID: 078162-0001-SA
Matrix: SOIL Sampled: 12 OCT 94 Received: 13 OCT 94
Authorized: 13 OCT 94 Prepared: See Below Analyzed: See Below

Parameter	Result	Dry Weight Units	Reporting Limit	Analytical Method	Prepared Date	Analyzed Date
Nitrate + Nitrite (as N)	0.79	mg/kg	0.26	353.2 Modified	27 OCT 94	27 OCT 94

Percent Moisture is 4.9%. All results and limits are reported on a dry weight basis.

ND = Not detected
NA = Not applicable

Reported By: Lori Ann Upton Approved By: Jennifer Kimzey

The cover letter is an integral part of this report.
Rev 230787

Quanterra
Environmental Services

QC LOT ASSIGNMENT REPORT
Wet Chemistry Analysis and Preparation

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
078162-0001-SA	SOIL	NO3&NO2-S	27 OCT 94-A	27 OCT 94-A
078162-0002-SA	SOIL	NO3&NO2-S	27 OCT 94-A	27 OCT 94-A

Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE REPORT
Wet Chemistry Analysis and Preparation
Project: 078162

Category: NO3&NO2-S Nitrate plus nitrite for soil/solid/waste matrices.
Matrix: SOIL
QC Lot: 27 OCT 94-A QC Run: 27 OCT 94-A
Concentration Units: mg/kg

Analyte	Concentration Spiked	Measured		Accuracy(%) LCS	Limits
Nitrate + Nitrite (as N)	2.50	2.53	-	101	75-125

ND = Not Detected

Calculations are performed before rounding to avoid round-off errors in calculated results.

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	1 16-oz jar per sample location						
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	CG						
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	16 oz						
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C						
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED							
RTLD154 - 0311-0001	S	10/13/94 0945		✓		✓	✓	✓	
RTLD154 - 0316-0001	S	10/13/94 1010		✓		✓	✓	✓	
RTLD154 -									
RTLD154 -									
RTLD154 -									
RTLD154 -									
RTLD154 -									
RTLD154 -									
RTLD154 -									
RTLD154 -									
RTLD154 -									

MATRIX:
- SOIL*
- WATER
- OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT EACH LOCATION IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL REQUESTED ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
LATA	[signature]	GRAM, Inc	[signature]	10/13/94	1131
GRAM	Jeff Johnson	Gram Inc	[signature]	10/17/94	1132

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
Gram, Inc	[signature]	[illegible]	[signature]	825555 4092		

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	1 160Z glass jar per sample location					
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	1					
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	160Z					
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C					
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED						
KRTLD154 - 0081 - 0001	S	8/25/94 1030	✓	✓		✓	✓	✓
KRTLD154 - 0084 - 0001	S	8/25/94 1207	✓	✓		✓	✓	✓
KRTLD154 - 0084 - 0002	S	8/25/94 1207	✓	✓		✓	✓	✓
KRTLD154 - 0276 - 0001	S	8/24/94 0915	✓	✓		✓	✓	✓
KRTLD154 - 0284 - 0001	S	8/25/94 0870	✓	✓		✓	✓	✓
KRTLD154 - 0284 - 0001 MS/MSD	S	8/25/94 0870	✓	✓		✓	✓	✓
KRTLD154 - 0151 - 0001	S	8/26/94 0900	✓	✓				
KRTLD154 - 0157 - 0001	S	8/26/94 1100	✓	✓	✓			
KRTLD154 - 0160 - 0001	S	8/26/94 1213	✓	✓				
KRTLD154 - 0161 - 0001	S	8/26/94 1235	✓	✓				
KRTLD154 - 0165 - 0001	S	8/26/94 1340	✓	✓	✓			

J-2

MATRIX:
S - SOIL*
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
LATA	Lawrence Denton	LATA	R. L. Mann	8/29/94	1540

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
LATA	R. L. Mann	Fedex	[illegible]	769646524	8/29/94	1540

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS •	1 16-oz jar per sample location						
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	Glass						
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	16 oz						
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C						
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED							
KRTLD154 - 0301 - 0001	S	8/24/94 0851	✓	✓		✓	✓	✓	✓
KRTLD154 - 0307 - 0001	S	8/24/94 1027	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0271 - 0001	S	8/30/94 0939			✓				
KRTLD154 - 0273 - 0001	S	8/30/94 1004			✓				
KRTLD154 - 0231 - 0001	S	8/30/94 1254	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0231 - 0002	S	8/30/94 1754	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0238 - 0001	S	8/31/94 0845	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0288 - 0001	S	8/31/94 1200	✓	✓		✓	✓	✓	✓
KRTLD154 - 0297 - 0001	S	1/31/94 1325	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0254 - 0001	S	9/1/94 0930	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0254 - 0001 MS/MSD	S	9/1/94 0930	✓	✓	✓	✓	✓	✓	✓

4-3

MATRIX:
- SOIL•
- WATER
- OTHER

CONTAINER TYPES:
- P - POLYETHYLENE
- CG - CLEAR GLASS
- AG - AMBER GLASS

NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL NALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE RE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1-7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
Gram, Inc	Rhonda Mottern	GRAM, Inc	Jeff Johnson	9/2/94	1435

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
GRAM Inc	Jeff Johnson	FED-X			9.2	1515

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	1	1	1	1	1	1	1
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	Glass	jar	per	sample	location		
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	16 oz	or	8 oz				
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C						
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED							
KRTLD154 - 0255-0001	S	9/1/94 1022	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 025X-0001	S	9/1/94 1035	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0246-0001	S	9/2/94 0827				✓	✓	✓	
KRTLD154 - 0247-0001	S	9/1/94 0825				✓	✓	✓	
KRTLD154 - 024X-0001	S	9/2/94 0845				✓	✓	✓	
KRTLD154 - 0249-0001	S	9/2/94 0910				✓	✓	✓	
KRTLD154 - 0250-0001	S	9/2/94 0909				✓	✓	✓	
KRTLD154 - ____-____									
KRTLD154 - ____-____									
KRTLD154 - ____-____									
KRTLD154 - ____-____									

MATRIX:
S - SOIL*
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
Gram, Inc.	Rhonda Mathews	GRAM, Inc	Jeff Johnson	9/2/94	1435

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
GRAM, Inc	Jeff Johnson	Fedex			9.2	15:15

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

CHAIN OF CUSTODY

MUST RE-SAMPLE

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	1 - 16 oz glass jar per sample						
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	glass						
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	16 oz						
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C						
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED							
KRTLD154 - 0266 - 0001	S	9/7/94 0957	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0296 - 0001	S	9/7/94 1120	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - ____ - ____									
KRTLD154 - ____ - ____									
KRTLD154 - ____ - ____									
KRTLD154 - ____ - ____									
KRTLD154 - ____ - ____									
KRTLD154 - ____ - ____									
KRTLD154 - ____ - ____									
KRTLD154 - ____ - ____									
KRTLD154 - ____ - ____									

4-5

MATRIX:
S - SOIL*
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1-7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
Gram, Inc	Thirsty Methum	GRAM, Inc		9/6/94	1254

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
GRAM INC	Staff Johnson	Fed Ex	D. Bilder	7764131910	9-6-94	1552

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	2	1	2	1	1	1	1
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	AG	P	AG	P	AG	P	P
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	1000 ml	500 ml	1000 ml	1000 ml	250 ml	1000 ml	500 ml
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C	4°C	4°C	HNO_3, 4°C	HNO_3, 4°C	HNO_3, 4°C	NaOH, 4°C
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED							
KRTLD154 - 0166 - 1001	W	7/7/94 1030	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0246 - 1001	W	7/7/94 1030	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0246 - 2001	W	7/7/94 1030	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0247 - 1001	W	7/7/94 1030	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0248 - 1001	W	7/7/94 1030	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - _____ - _____									
KRTLD154 - _____ - _____									
KRTLD154 - _____ - _____									
KRTLD154 - _____ - _____									
KRTLD154 - _____ - _____									
KRTLD154 - _____ - _____									

MATRIX:
S - SOIL*
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
GRAM, Inc	Jeff Johnson	FedEx	M Bennett	823535446	7/8	1630

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

CHAIN OF CUSTODY

2014 SAMPLES

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	1 16-oz glass	jar per	sample	location			
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	glass						
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	16 oz						
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C						
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED							
KRTLD154 - 0266 - 0001	S	9/1/94 1123	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0296 - 0001	S	9/1/94 1138	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0178 - 0001	S	9/7/94 1500	✓	✓		✓	✓	✓	✓
KRTLD154 - 0174 - 0001	S	9/7/94 1500	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0174 - 0002	S	9/7/94 1500	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0180 - 0001	S	9/7/94 1500	✓	✓		✓	✓	✓	✓
KRTLD154 - 0193 - 0001	S	9/1/94 0930	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0097 - 0001	S	9/1/94 0900	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0104 - 0001	S	9/1/94 1030	✓	✓		✓	✓	✓	✓
KRTLD154 - 0113 - 0001	S	9/12/94 0845	✓	✓		✓	✓	✓	✓
KRTLD154 - 0120 - 0001	S	9/12/94 0915	✓	✓		✓	✓	✓	✓

4 - 1 - 4

MATRIX:
S - SOIL*
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7- 21), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
Gram, Inc	Linda Wetherbee	GRAM, Inc	Jeff Johnson	9/13	1660

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
GRAM, Inc	Jeff Johnson	FED-EX		823535 4433	9/13	5:27

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	4	1	2	1	1	1	1
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	AG	P	AG	P	AG	P	P
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	1L	1L	1L	1L	250	1L	.5L
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C	H_2SO_4, 4°	4°C	HNO_3, 4°	HNO_3, 4°	HNO_3, 4°	NaOH, 4°
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED						
KRTLD154 - 0314-0001	W	9/13/94 1100	X	X	X	X	X	X	X
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									
KRTLD154 -									

MATRIX:
S - SOIL*
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
GRAM, Inc.	Steve Johnson	FedEx	[illegible]	823535 4437	9/13	527

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS •	1-160z	jar for	each sample location				
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	CG						
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	160z						
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C						
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED							
KRTLD154 - 0046-0001	S	9/12/94 1310	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0047-0001	S	9/12/94 1310	✓	✓		✓	✓	✓	✓
KRTLD154 - 0047-0002	S	9/12/94 1310	✓	✓		✓	✓	✓	✓
KRTLD154 - 0049-0001	S	9/12/94 1310	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0076-0001	S	9/13/94 1345	✓	✓		✓	✓	✓	✓
KRTLD154 - 0009-0001	S	9/14/94 0930	✓	✓		✓	✓	✓	✓
KRTLD154 - 0013-0001	S	9/14/94 1005	✓	✓		✓	✓	✓	✓
KRTLD154 - 0025-0001	S	9/14/94 1245	✓	✓		✓	✓	✓	✓
KRTLD154 - 0035-0001	S	9/14/94 1400	✓	✓		✓	✓	✓	✓
KRTLD154 -									
KRTLD154 -									

b-4

MATRIX:
S - SOIL•
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

•NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
Gram Inc	Rhonda Nathan	GRAM, Inc	Jeff Johnson	9/16	1345

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
GRAM, INC	Jeff Johnson	Fedex	[illegible]	823535411	9/16	1700

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	1 - 16 oz jar - soil sample ID					
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	CG					
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	16 oz					
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	4°C					
LABORATORY CONTACT:		ANALYSES REQUESTED	1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED							
KRTLD154 - 0136-0001	S	9/5/14 1051	✓	✓		✓	✓	✓	✓
KRTLD154 - 0140-0001	S	9/5/14 1201	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0215-0001	S	9/19/14 0815	✓	✓	✓	✓	✓	✓	✓
KRTLD154 - 0225-0001	S	9/19/14 1020	✓	✓		✓	✓	✓	✓
KRTLD154 - ____-____									
KRTLD154 - ____-____									
KRTLD154 - ____-____									
KRTLD154 - ____-____									
KRTLD154 - ____-____									
KRTLD154 - ____-____									
KRTLD154 - ____-____									

MATRIX:
S - SOIL*
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
LATA	[signature]	GRAM, INC	Jeff Johnson	9/20	1315

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME
GRAM, INC	Jeff Johnson	FED-EX	[signature]	823535442[illegible]	9/20/14	1350

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	1						
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	P/G						
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	1 L						
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	none						
LABORATORY CONTACT:		ANALYSES REQUESTED	1 X	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED						
KRTLD154 - 0116 - 1001	W	1/1/01 1030	✓					
KRTLD154 - 0246 - 1001	W	7/1/94 1030	✓					
KRTLD154 - 0146 - 2001	W	1/1/01 1030	✓					
KRTLD154 - 0146 - 1001	W	1/1/01 1030	✓					
KRTLD154 - 0246 - 1001	W	1/1/01 1030	✓					
KRTLD154 - 0314 - 2001	W	7/12/94 1100	✓					
KRTLD154 - _____ - _____								
KRTLD154 - _____ - _____								
KRTLD154 - _____ - _____								
KRTLD154 - _____ - _____								
KRTLD154 - _____ - _____								

MATRIX:
S - SOIL*
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

Grab Alpha-Pt 2

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
LATA	[signature]	377 MG/BGPB	[signature]	9/20/94	0836

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	1						
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	P.L.						
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	1 L						
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	None						
LABORATORY CONTACT:		ANALYSES REQUESTED	Y 1	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED							
KRTLD154 - 0 2 1 7 - 0 0 2 1	S	9/17/99 1400	✓						
KRTLD154 - 0 2 1 7 - 0 0 5 2	S	9/17/99 1400	✓						
KRTLD154 - 0 2 1 7 - 0 0 3 1	S	9/17/99 1400	✓						
KRTLD154 - 0 2 1 7 - 0 0 3 1	S	9/17/99 1400	✓						
KRTLD154 - 0 2 1 7 - 0 0 2 1	S	9/17/99 1400	✓						
KRTLD154 - 0 2 1 7 - 0 0 2 1	S	9/17/99 1400	✓						
KRTLD154 - 0 2 2 6 - 0 0 0 1	S	9/17/99 1400	✓						
KRTLD154 - 0 2 2 3 - 0 0 0 1	S	9/17/99 1400	✓						
KRTLD154 - 0 2 2 4 - 0 0 0 2	S	9/17/99 1400	✓						
KRTLD154 - 0 2 2 4 - 0 0 0 1	S	9/17/99 1400	✓						
KRTLD154 - 0 2 2 4 - 0 0 0 1 MS/MSD	S	9/17/99 1400	✓						

J-12

MATRIX:
S - SOIL*
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
		LATA		10/1/99	0730
LATA		377 MSG/SGPL		9/20/99	0836

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

CHAIN OF CUSTODY

NOTE: MEASURE COOLER TEMPERATURE FROM TEMPERATURE BLANK

PROJECT NAME:	McCORMICK RANCH	# OF CONTAINERS *	1						
CLIENT:	PHILLIPS LABORATORY, KIRTLAND AFB	TYPE OF CONTAINERS	P-1-4						
PRIMARY CONTACT:	JEFF JOHNSON (GRAM) 505-299-1282	CONTAINER VOLUME	1 qt						
SECONDARY CONTACT:	STEVE GORIN (LATA) 505-880-3439	PRESERVATIVE	none						
LABORATORY CONTACT:		ANALYSES REQUESTED	8 X	2	3	4	5	6	7

SAMPLE IDENTIFICATION (SITE ID, LOCATION ID, SAMPLE ID)	MATRIX	DATE/TIME COLLECTED						
KRTLD154 - 0 3 2 3 - 0 0 0 1	S	9/14 1403	✓					
KRTLD154 - 0 3 2 3 - 0 0 0 1	S	9/20 1420	✓					
KRTLD154 - 0 3 2 7 - 0 0 0 1	S	9/20 1400	✓					
KRTLD154 - 0 3 2 1 - 0 0 0 1	S	9/19/94 1500	✓					
KRTLD154 - [illegible]		[illegible]	✓					
KRTLD154 - [illegible]		[illegible]	✓					
KRTLD154 - [illegible]		[illegible]	✓					
KRTLD154 - [illegible]		[illegible]	✓					
KRTLD154 - [illegible]		[illegible]	✓					
KRTLD154 - [illegible]		[illegible]	✓					
KRTLD154 -								
KRTLD154 -								

J-13

MATRIX:
S - SOIL*
W - WATER
O - OTHER

CONTAINER TYPES:
P - POLYETHYLENE
CG - CLEAR GLASS
AG - AMBER GLASS

*NOTE: FOR SOIL SAMPLES ONLY ONE 16-oz GLASS JAR OF SOIL AT 4 C IS REQUIRED TO PROVIDE SUFFICIENT SAMPLE VOLUME FOR ALL ANALYSES. THE REQUIRED ANALYSES FOR EACH SOIL SAMPLE ARE IDENTIFIED BY CHECKING THE APPROPRIATE BOXES (1 - 7)

LABORATORY ANALYSES:
1. EXPLOSIVES (SW8330, SW8330-ADD-1, SW8330-ADD-2)
2. NITRATE + NITRITE (E353.2)
3. SEMI-VOCs (SW8270)
4. ICP METALS (SW6010); MINUS LEAD, ARSENIC, SELENIUM, AND MERCURY
5. MERCURY (SW7471)
6. LEAD (SW7421), ARSENIC (SW7060), SELENIUM (SW7740)
7. CYANIDE (SW9012)

6. Gross Alpha, Beta

RELINQUISHED BY:		RECEIVED BY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME
		LATA		9/20/94	0825
LATA		377 MSG/SGPB		9/20/94	0836

RELEASED TO SHIPPER BY:		RECEIVED BY SHIPPER:				
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	BILL OF LADING #	DATE	TIME

RELEASED TO LABORATORY BY (SHIPPER):		RECEIVED BY LABORATORY:			
COMPANY NAME	SIGNATURE	COMPANY NAME	SIGNATURE	DATE	TIME

FEDERAL EXPRESS

USE THIS AIRBILL FOR SHIPMENTS WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER **1769646524**

1769646524

SENDER'S COPY

SENDER'S COPY
DROP OFF YOUR PACKAGE AND SAVE

1 SENDER'S FEDERAL EXPRESS ACCOUNT NUMBER: 1282 72 07 | Date: 6/24/94

From (Your Name) Please Print: Jeff Johnson | Your Phone Number (Very Important): (505) 271-135
Company: GRANT J.C | Department/Floor No.:
Street Address: 6500 Menaul Blvd NE #B-370
City: Albuquerque | State: N.M. | ZIP Required: 87112

2 To (Recipient's Name) Please Print: Diana Brooks | Recipient's Phone Number (Very Important): (916) 372-5600
Company: Quaternary | Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes): 950 Riverside Pkwy
City: West Sacramento | State: CA | ZIP Required: 95605

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoices.)
McCormick Ranch

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here
Street Address:
City: | State: | ZIP Required:

3 PAYMENT: 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card
5 [ ] Cash/Check Acct./Credit Card No. Exp. Date

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning†)	Standard Overnight (Delivery by next business afternoon. No Saturday delivery†)
11 [X] OTHER PACKAGING	51 [ ] OTHER PACKAGING
16 [ ] FEDEX LETTER*	56 [ ] FEDEX LETTER*
12 [X] FEDEX PAK*	52 [ ] FEDEX PAK*
13 [ ] FEDEX BOX	53 [ ] FEDEX BOX
14 [ ] FEDEX TUBE	54 [ ] FEDEX TUBE
Economy Two-Day (Delivery by second business day †)	**Government Overnight** (Restricted to authorized users only)
30 [ ] ECONOMY*	46 [ ] GOVT LETTER
	41 [ ] GOVT PACKAGE

* Economy Letter Rate not available. Minimum charge: One pound Economy rate

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Confirmed reservation required) 80 [ ] TWO-DAY FREIGHT**
† Delivery commitment may be later in some areas. *Declared Value Limit $500. **Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
1 [ ] HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
2 [X] DELIVER WEEKDAY

Saturday Service
31 [ ] HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
3 [ ] DELIVER SATURDAY (Extra charge) (Not available to all locations)
9 [ ] SATURDAY PICK-UP (Extra charge)

Special Handling
4 [ ] DANGEROUS GOODS (Extra charge)
6 [ ] DRY ICE Dangerous Goods Shipper's Declaration not required
Dry Ice, 9, UN 1845, ____ x ____ kg 904 III
[ ] DESCRIPTION
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6 PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE (See right)
Total	Total 15	Total

DIM SHIPMENT (Chargeable Weight)
[ ] ____ lbs.
L x W x H

Received At
1 [ ] Regular Stop 3 [ ] Drop Box
2 [ ] On-Call Stop 4 [ ] B.S.C. 5 [ ] Station

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide, available upon request. See back of sender's copy of this airbill for information. Service conditions may vary for Government Overnight Service. See U.S. Government Service Guide for details.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including minnsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to the left. Recovery cannot exceed actual documented loss. The maximum Declared Value for FedEx Letter and FedEx Pak packages is $500.

In the event of untimely delivery, Federal Express will at your request and with some limitations refund all transportation charges paid. See Service Guide for further information.

Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.

7 Release Signature:

Federal Express Use	
Base Charges	
Declared Value Charge	
Other 1	
Other 2	
Total Charges	

REVISION DATE 12/92
PART #137205 GBFE
FORMAT #158
158

K-1

FEDERAL EXPRESS

USE THIS AIRBILL FOR SHIPMENTS WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER **1769133391**

1769133391

SENDER'S COPY

SENDER'S COPY
DROP OFF YOUR PACKAGE AND SAVE

1 SENDER'S FEDERAL EXPRESS ACCOUNT NUMBER: 1282-172-07 Date: 9/2/94

From (Your Name) Please Print: Jeff Johnson
Your Phone Number (Very Important): (505) 299-1288
Company: GRAM, Inc.
Department/Floor No.:
Street Address: 8500 Menaul Blvd NE, Suite B-370
City: Albuquerque State: NM ZIP Required: 87112

2 To (Recipient's Name) Please Print: Dianna Brooks
Recipient's Phone Number (Very Important): (916) 373-5600
Company: Quanterra
Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 880 Riverside Pkwy
City: West Sacramento State: CA ZIP Required: 95605

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): McCormick Ranch

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here
Street Address:
City State ZIP Required

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card
5 [ ] Cash/Check Acct./Credit Card No. Exp. Date

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning)
- 11 [X] OTHER PACKAGING
- 16 [ ] FEDEX LETTER*
- 12 [ ] FEDEX PAK*
- 13 [ ] FEDEX BOX
- 14 [ ] FEDEX TUBE

Standard Overnight (Delivery by next business afternoon. No Saturday delivery.)
- 51 [ ] OTHER PACKAGING
- 56 [ ] FEDEX LETTER*
- 52 [ ] FEDEX PAK*
- 53 [ ] FEDEX BOX
- 54 [ ] FEDEX TUBE

Economy Two-Day (Delivery by second business day.)
- 30 [ ] ECONOMY**
  ** Economy Letter Rate not available. Minimum charge: One pound Economy rate

Government Overnight (Restricted to authorized users only)
- 46 [ ] GOVT LETTER
- 41 [ ] GOVT PACKAGE

Freight Service (for packages over 150 lbs.)
- 70 [ ] OVERNIGHT FREIGHT** (Confirmed reservation required)
- 80 [ ] TWO-DAY FREIGHT**

† Delivery commitment may be later in some areas
*Declared Value Limit $500.
**Call for delivery schedule

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
- 1 [ ] HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
- 2 [ ] DELIVER WEEKDAY

Saturday Service
- 31 [ ] HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
- 3 [X] DELIVER SATURDAY (Extra charge) (Not available to all locations)
- 9 [ ] SATURDAY PICK-UP (Extra charge)

Special Handling
- 4 [ ] DANGEROUS GOODS (Extra charge)
- 6 [ ] DRY ICE Dangerous Goods Shipper's Declaration not required
  Dry Ice, 9, UN 1845 ____ X ____ kg 904 III
  [ ] DESCRIPTION
- 12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6

PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE (See right)
Total	Total 1 7 7	Total

DIM SHIPMENT (Chargeable Weight)
[ ] ____ lbs.
L x W x H

Received At:
1 [ ] Regular Stop 3 [ ] Drop Box
2 [ ] On-Call Stop 4 [X] 5 [ ] Station

7 Release Signature: _____

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide, available upon request. See back of sender's copy of this airbill for information. Service conditions may vary for Government Overnight Service. See U.S. Government Service Guide for details.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to the left. Recovery cannot exceed actual documented loss. The maximum Declared Value for FedEx Letter and FedEx Pak packages is $500.

In the event of untimely delivery, Federal Express will at your request and with some limitations refund all transportation charges paid. See Service Guide for further information.

Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 12/92
PART #137205 GBFE
FORMAT #158
158

K-2

FEDERAL EXPRESS

USE THIS AIRBILL FOR SHIPMENTS WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE TRACKING NUMBER
1769131910

1769131910

SENDER'S COPY

SENDER'S COPY
DROP OFF YOUR PACKAGE AND SAVE

1 SENDER'S FEDERAL EXPRESS ACCOUNT NUMBER: 1282-172-07 | Date: 9/6/94

From (Your Name) Please Print: Jeff Johnson | Your Phone Number (Very Important): (505) 299-1481
Company: GRAM, Inc | Department/Floor No.:
Street Address: 8500 Menaul Blvd NE, # B-370
City: Albuquerque | State: NM | ZIP Required: 87112

2 To (Recipient's Name) Please Print: Diana Brooks | Recipient's Phone Number (Very Important): (916) 373-5800
Company: Quantrist | Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 860 Riverside Pkwy
City: West Sacramento | State: CA | ZIP Required: 95605

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.)

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here
Street Address:
City: | State: | ZIP Required:

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card
5 [ ] Cash/Check Acct./Credit Card No. Exp. Date

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning†)		Standard Overnight (Delivery by next business afternoon. No Saturday delivery†)	
11	[X] OTHER PACKAGING	51	[ ] OTHER PACKAGING
16	[ ] FEDEX LETTER*	56	[ ] FEDEX LETTER*
12	[ ] FEDEX PAK*	52	[ ] FEDEX PAK*
13	[ ] FEDEX BOX	53	[ ] FEDEX BOX
14	[ ] FEDEX TUBE	54	[ ] FEDEX TUBE
Economy Two-Day (Delivery by second business day †)		Government Overnight (Restricted for authorized users only)	
30	[ ] ECONOMY*	46	[ ] GOVT LETTER
		41	[ ] GOVT PACKAGE

* Economy Letter Rate not available. Minimum charge: One pound Economy rate

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Confirmed reservation required) 80 [ ] TWO-DAY FREIGHT**

† Delivery commitment may be later in some areas
*Declared Value Limit $500.
**Call for delivery schedule

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
1 [ ] HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
2 [X] DELIVER WEEKDAY

Saturday Service
31 [ ] HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
3 [ ] DELIVER SATURDAY (Extra charge) (Not available to all locations)
9 [ ] SATURDAY PICK-UP (Extra charge)

Special Handling
4 [ ] DANGEROUS GOODS (Extra charge)
6 [ ] DRY ICE Dangerous Goods Shipper's Declaration not required
Dry Ice, 9, UN 1845, ____ X ____ kg, 904 (c)
[ ] DESCRIPTION
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6

PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE (See right)
Total	Total	Total

DIM SHIPMENT (Chargeable Weight)
[ ] ____ lbs.
L x W x H

Received At:
1 [ ] Regular Stop 3 [ ] Drop Box
2 [ ] On-Call Stop 4 [ ] C.O.D. 5 [ ] Station

7 Release Signature:

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide, available upon request. See back of sender's copy of this airbill for information. Service conditions may vary for Government Overnight Service. See U.S. Government Service Guide for details.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to the left. Recovery cannot exceed actual documented loss. The maximum Declared Value for FedEx Letter and FedEx Pak packages is $500.

In the event of untimely delivery, Federal Express will at your request and with some limitations refund all transportation charges paid. See Service Guide for further information.

Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 12/92
PART #137205 QB/FE
FORMAT #158
158

K-3

FEDERAL EXPRESS

MULTIPLE PACKAGE SHIPMENT LABELS

SHIPMENT DATE	09-07-94
MASTER AIRBILL NUMBER	823535396

2 OF 3 — 919213275 6

DESCRIPTION

3 OF 3 — 919213276 5

DESCRIPTION

__ OF __ — 919213277 4

DESCRIPTION

__ OF __ — 919213278 3

DESCRIPTION

__ OF __ — 919213279 2

DESCRIPTION

PART #136295 REV. 7/93 ©1993 FedEx
SENDER'S COPY FORMAT #158 SRCEF 4/94

K-4

USE THIS AIRBILL FOR SHIPMENTS WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

823535396

AIRBILL PACKAGE TRACKING NUMBER 823535396

SENDER'S COPY

RESS ACCOUNT NUMBER: T20-7 | Date: 9/7/94

Please Print: Johnson | Your Phone Number (Very Important): (505-299-1282

Department/Floor No.

I&C

ENAUL BLVD NE STE 5370

State: NM | ZIP Required: 8 7 1 1 2

JERQUE

2 To (Recipient's Name) Please Print: Dianna Brooks | Phone Number (Very Important): (916) 373-560

Company: Quantera | Department/Floor No.

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 880 Riverside Pkwy

City: West Sacramento | State: CA | ZIP Required: 95605

LING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.)

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here
Street Address

City | State | ZIP Required

Sender 2 ☐ Bill Recipient's FedEx Acct. No. 3 ☐ Bill 3rd Party FedEx Acct. No. 4 ☐ Bill Credit Card

ct./Credit Card No. | Exp. Date

ERVICES (only one box)

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Standard Overnight (Delivery by next business afternoon. No Saturday delivery.)
- 51 ☐ OTHER PACKAGING
- 56 ☐ FEDEX LETTER*
- 52 ☐ FEDEX PAK*
- 53 ☐ FEDEX BOX
- 54 ☐ FEDEX TUBE

Government Overnight (Restricted for authorized users only)
- 46 ☐ GOVT. LETTER
- 41 ☐ GOVT. PACKAGE

ight Service (Packages over 150 lbs.)
- 80 ☐ TWO-DAY FREIGHT**

*Declared Value Limit $500. **Call for delivery schedule

Weekday Service
- 1 ☐ HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
- 2 ☒ DELIVER WEEKDAY

Saturday Service
- 31 ☐ HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
- 3 ☐ DELIVER SATURDAY (Extra charge) (Not available to all locations)
- 9 ☐ SATURDAY PICK-UP (Extra charge)

Special Handling
- 4 ☐ DANGEROUS GOODS (Extra charge)
- 6 ☐ DRY ICE — Dangerous Goods Shipper's Declaration not required — Dry Ice, 9, UN 1845, ___ X ___ kg, 904 III
- ☐ DESCRIPTION
- 12 ☐ HOLIDAY DELIVERY (If offered) (Extra charge)

6	PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE (See right)
	1	74	
	1	77	
	1	72	
Total	3	223	Total

DIM SHIPMENT (Chargeable Weight) ☐ ___ lbs.

L x W x H

Received At:
- 1 ☐ Regular Stop
- 2 ☐ On-Call Stop
- 3 ☐ Drop Box
- 4 ☒ B.S.C.
- 5 ☐ Station

7 Release Signature:

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide, available upon request. See back of sender's copy of this airbill for information. Service conditions may vary for Government Overnight Service. See U.S. Government Service Guide for details.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to the left. Recovery cannot exceed actual documented loss. The maximum Declared Value for FedEx Letter and FedEx Pak packages is $500.

In the event of untimely delivery, Federal Express will at your request and with some limitations refund all transportation charges paid. See Service Guide for further information.

Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.

Federal Express Use	
Base Charges	
Declared Value Charge	
Other 1	
Other 2	
Total Charges	

REVISION DATE 12/92
PART #137204 FXEM 8/93
FORMAT #158

158

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FEDERAL EXPRESS

MULTIPLE PACKAGE SHIPMENT LABELS

SHIPMENT DATE	2/13/94
MASTER AIRBILL NUMBER	823535443 3

2 OF 2 — 9197414003

DESCRIPTION

OF — 9197414012

DESCRIPTION

OF — 9197414021

DESCRIPTION

OF — 9197414037

DESCRIPTION

OF — 9197414046

DESCRIPTION

PART #136285 REV. 7/93 ©1993 FedEx
SENDER'S COPY FORMAT #178 SRCEF 4/94

USE THIS AIRBILL FOR SHIPMENTS WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-236-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 823535443 3

823535443 3

SENDER'S COPY

EXPRESS ACCOUNT NUMBER: 1720-7 | Date: 9/13

(e) Please Print: Johnson | Your Phone Number (Very Important): 605-299-1282

Department/Floor No.:

INC

MENAUL BLVD NE STE B370

State: NM | ZIP Required: 8 7 1 1 2

UERQUE

ILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.)

2 To (Recipient's Name) Please Print: DIANA Brooks | Recipient's Phone Number (Very Important): (916) 373-560

Company: QUANTERRA | Department/Floor No.:

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 880 Riverside PKWY

City: West SACRAMENTO | State: CA | ZIP Required: 95605

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here
Street Address:
City | State | ZIP Required

3 Sender 2 ☐ Bill Recipient's FedEx Acct. No. 3 ☐ Bill 3rd Party FedEx Acct. No. 4 ☐ Bill Credit Card
Acct./Credit Card No. | Exp. Date

SERVICES (Check only one box)

Standard Overnight (Delivery by next business afternoon, No Saturday delivery*)
- 51 ☐ OTHER PACKAGING
- 56 ☐ FEDEX LETTER*
- 52 ☐ FEDEX PAK*
- 53 ☐ FEDEX BOX
- 54 ☐ FEDEX TUBE

Government Overnight (Restricted for authorized users only)
- 46 ☐ GOVT LETTER
- 41 ☐ GOVT PACKAGE

ight Service
- 80 ☐ TWO-DAY FREIGHT**

*Declared Value Limit $500. **Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
- 1 ☐ HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
- 2 ☒ DELIVER WEEKDAY

Saturday Service
- 31 ☐ HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
- 3 ☐ DELIVER SATURDAY (Extra charge) (Not available to all locations)
- 9 ☐ SATURDAY PICK-UP (Extra charge)

Special Handling
- 4 ☐ DANGEROUS GOODS (Extra charge)
- 6 ☐ DRY ICE (Dangerous Goods Shipper's Declaration not required) Dry Ice, 9, UN 1845, ____ X ____ kg, 904 ☐
- ☐ DESCRIPTION
- 12 ☐ HOLIDAY DELIVERY (If offered) (Extra charge)

6

PACKAGES	WEIGHT (Rounded Up Only)	YOUR DECLARED VALUE (See right)
1	72	
1	52	
Total	Total	Total

DIM SHIPMENT (Chargeable Weight) ☐ ____ lbs.
L x W x H

Received At:
1 ☐ Regular Stop | 3 ☐ Drop Box | 4 ☐ B.S.C. | 2 ☐ On-Call Stop | 5 ☐ Station

7

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

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We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to the left. Recovery cannot exceed actual documented loss. The maximum Declared Value for FedEx Letter and FedEx Pak packages is $500.

In the event of untimely delivery, Federal Express will at your request and with some limitations refund all transportation charges paid. See Service Guide for further information.

Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.

Release Signature:

Federal Express Use	
Base Charges	
Declared Value Charge	
Other 1	
Other 2	
Total Charges	

REVISION DATE 12/92
PART #137204 FXEM 8/93
FORMAT #158
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FEDERAL EXPRESS

USE THIS AIRBILL FOR SHIPMENTS WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 823535441 1

32B1M 823535441 1

SENDER'S COPY

SENDER'S COPY — DROP OFF YOUR PACKAGE AND SAVE

1 SENDER'S FEDERAL EXPRESS ACCOUNT NUMBER 1282-1720-7 — Date 9/16/94

From (Your Name) Please Print: Jeff Johnson — Your Phone Number (Very Important): 805-299-1282

Company: OKAM INC — Department/Floor No.:

Street Address: 8500 MENAUL BLVD NE STE 5370

City: ALBUQUERQUE — State: NM — ZIP Required: 8 7 1 1 2

2 To (Recipient's Name) Please Print: DIANNA Brooks — Recipient's Phone Number (Very Important): (916) 373-96

Company: QUANTERRA — Department/Floor No.:

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 880 Riverside PKWY

City: West SACRAMENTO — State: CA — ZIP Required: 95605

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.)

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here — Street Address: — City: — State: — ZIP Required:

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card 5 [ ] Cash/Check — Acct./Credit Card No. — Exp. Date

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning†)	Standard Overnight (Delivery by next business afternoon. No Saturday delivery†)
1 [X] OTHER PACKAGING	51 [ ] OTHER PACKAGING
16 [ ] FEDEX LETTER*	56 [ ] FEDEX LETTER*
12 [ ] FEDEX PAK*	52 [ ] FEDEX PAK*
13 [ ] FEDEX BOX	53 [ ] FEDEX BOX
14 [ ] FEDEX TUBE	54 [ ] FEDEX TUBE
Economy Two-Day (Delivery by second business day†)	**Government Overnight** (Restricted for delivered users only)
30 [ ] ECONOMY** * Economy Letter Rate not available. Minimum charge: One pound Economy rate.	46 [ ] GOVT LETTER 41 [ ] GOVT PACKAGE
Freight Service (for packages over 150 lbs.)	
70 [ ] OVERNIGHT FREIGHT** (Confirmed reservation required)	80 [ ] TWO-DAY FREIGHT**

† Delivery commitment may be later in some areas. *Declared Value Limit $500. **Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
1 [ ] HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
2 [ ] DELIVER WEEKDAY

Saturday Service
31 [ ] HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
3 [X] DELIVER SATURDAY (Extra charge) (Not available to all locations)
9 [ ] SATURDAY PICK-UP (Extra charge)

Special Handling
4 [ ] DANGEROUS GOODS (Extra charge)
6 [ ] DRY ICE — Dangerous Goods Shipper's Declaration not required — Dry Ice, 9, UN 1845 ____ x ____ kg, 904 III
[ ] DESCRIPTION
12 [ ] HOLIDAY DELIVERY (Not offered) (Extra charge)

6

PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE (See right)
Total 1	Total 1.8	Total

DIM SHIPMENT (Chargeable Weight) [ ] ____ lbs. — L x W x H

Received At: 1 [ ] Regular Stop 2 [ ] On-Call Stop 3 [ ] Drop Box 4 [X] B.S.C. 5 [ ] Station

7 Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.
Release Signature: ____

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide, available upon request. See back of sender's copy of this airbill for information. Service conditions may vary for Government Overnight Service. See U.S. Government Service Guide for details.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to the left. Recovery cannot exceed actual documented loss. The maximum Declared Value for FedEx Letter and FedEx Pak packages is $500.

In the event of untimely delivery, Federal Express will at your request and with some limitations refund all transportation charges paid. See Service Guide for further information.

Federal Express Use	
Base Charges	
Declared Value Charge	
Other 1	
Other 2	
Total Charges	

REVISION DATE 12/92
PART #137204 FXEM 8/93
FORMAT #158
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FEDERAL EXPRESS

USE THIS AIRBILL FOR SHIPMENTS WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE TRACKING NUMBER
8235354422

3251M 8235354422

SENDER'S COPY

SENDER'S COPY
DROP OFF YOUR PACKAGE AND SAVE

1 SENDER'S FEDERAL EXPRESS ACCOUNT NUMBER: 1282-1720-7 | Date: 9/30/94

From (Your Name) Please Print: Jeff Johnson | Your Phone Number (Very Important): 505-299-1282

Company: LRAM INC | Department/Floor No.:

Street Address: 8500 MENAUL BLVD NE STE B370

City: ALBUQUERQUE | State: NM | ZIP Required: 8 7 1 1 2

2 To (Recipient's Name) Please Print: Dianna Brooks | Recipient's Phone Number (Very Important): 916 373-5800

Company: QUANTERRA | Department/Floor No.:

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 880 Riverside PKWY

City: West Sacramento | State: CA | ZIP Required: 95605

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.)

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here
Street Address:
City: | State: | ZIP Required:

3 PAYMENT: 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card
5 [ ] Cash/Check Acct./Credit Card No. _____ Exp. Date ___/___

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning!)
11 [X] OTHER PACKAGING
16 [ ] FEDEX LETTER*
12 [ ] FEDEX PAK*
13 [ ] FEDEX BOX
14 [ ] FEDEX TUBE

Standard Overnight (Delivery by next business afternoon. No Saturday delivery!)
51 [ ] OTHER PACKAGING
56 [ ] FEDEX LETTER*
52 [ ] FEDEX PAK*
53 [ ] FEDEX BOX
54 [ ] FEDEX TUBE

Economy Two-Day (Delivery by second business day †)
30 [ ] ECONOMY*
* Economy Letter Rate not available. Minimum charge. One pound Economy rate.

Government Overnight (Restricted for authorized users only)
46 [ ] GOVT LETTER
41 [ ] GOVT PACKAGE

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Centermost reservation required)
80 [ ] TWO-DAY FREIGHT**
† Delivery commitment may be later in some areas
*Declared Value Limit $500.
**Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
1 [ ] HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
2 [X] DELIVER WEEKDAY

Saturday Service
31 [ ] HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
3 [ ] DELIVER SATURDAY (Extra charge) (Not available to all locations)

9 [ ] SATURDAY PICK-UP (Extra charge)

Special Handling
4 [ ] DANGEROUS GOODS (Extra charge)
6 [ ] DRY ICE (Dangerous Goods Shipper's Declaration not required)
Dry Ice, 9, UN 1845, _____ X _____ kg, 904 III
[ ] DESCRIPTION
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6

	PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE (See right)
Total	1	38	Total

DIM SHIPMENT (Chargeable Weight)
[ ] _____ lbs.
L x W x H

Received At
1 [ ] Regular Stop
2 [ ] On-Call Stop
3 [ ] Drop Box
4 [X] DSB S.O.
5 [ ] Station

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

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In the event of untimely delivery, Federal Express will at your request and with some limitations refund all transportation charges paid. See Service Guide for further information.

7 Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.

Release Signature: _____

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 12/92
PART #137204 FXEM 8/93
FORMAT #158
158

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FEDERAL EXPRESS

USE THIS AIRBILL FOR SHIPMENTS WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE
TRACKING NUMBER
8235354842

3251M 8235354842

SENDER'S COPY

SENDER'S COPY
DROP OFF YOUR PACKAGE AND SAVE

1 SENDER'S FEDERAL EXPRESS ACCOUNT NUMBER: 1282-1720-7
Date: 10/12/94

From (Your Name) Please Print: Wade McMinn
Your Phone Number (Very Important): (505) 299-1282
Company: GRAM INC
Department/Floor No.:
Street Address: 8500 MENAUL BLVD NE STE B370
City: ALBUQUERQUE
State: NM
ZIP Required: 8 7 1 1 2

2 To (Recipient's Name) Please Print: Diana Brooks
Recipient's Phone Number (Very Important): (916) 373-5400
Company: Quarterdeck
Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 150 Riverside Pkwy
City: West Sacramento
State: CA
ZIP Required: 95605

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): Mosaic Port

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here
Street Address:
City:
State:
ZIP Required:

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card
5 [ ] Cash/Check
Acct./Credit Card No.:
Exp. Date:

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning†)
11 [X] OTHER PACKAGING
16 [ ] FEDEX LETTER*
12 [ ] FEDEX PAK*
13 [ ] FEDEX BOX
14 [ ] FEDEX TUBE

Standard Overnight (Delivery by next business afternoon. No Saturday delivery†)
51 [ ] OTHER PACKAGING
56 [ ] FEDEX LETTER*
52 [ ] FEDEX PAK*
53 [ ] FEDEX BOX
54 [ ] FEDEX TUBE

Economy Two-Day (Delivery by second business day†)
30 [ ] ECONOMY**
* Economy Letter Rate not available. Minimum Charge: One pound Economy rate.

Government Overnight (Restricted for authorized users only)
46 [ ] GOVT LETTER
41 [ ] GOVT PACKAGE

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Confirmed reservation required)
80 [ ] TWO-DAY FREIGHT**
† Delivery commitment may be later in some areas
*Declared Value Limit $500.
**Call for delivery schedule

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
1 [ ] HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
2 [ ] DELIVER WEEKDAY

Saturday Service
31 [ ] HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
3 [ ] DELIVER SATURDAY (Extra charge) (Not available to all locations)
9 [ ] SATURDAY PICK-UP (Extra charge)

Special Handling
4 [ ] DANGEROUS GOODS (Extra charge)
6 [ ] DRY ICE Dangerous Goods Shipper's Declaration not required
Dry Ice, 9, UN 1845 ____ X ____ kg. 954 III
[ ] DESCRIPTION
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6

PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE (See right)
Total	Total 129	Total

DIM SHIPMENT (Chargeable Weight)
[ ] ____ lbs.
L x W x H

Received At
1 [ ] Regular Stop
2 [ ] On-Call Stop
3 [ ] Drop Box
4 [ ] B.S.C.
5 [ ] Station

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide, available upon request. See back of sender's copy of this airbill for information. Service conditions may vary for Government Overnight Service. See U.S. Government Service Guide for details.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to the left. Recovery cannot exceed actual documented loss. The maximum Declared Value for FedEx Letter and FedEx Pak packages is $500.

In the event of untimely delivery, Federal Express will at your request and with some limitations refund all transportation charges paid. See Service Guide for further information.

7 Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.

Release Signature:

Federal Express Use	
Base Charges	
Declared Value Charge	
Other 1	
Other 2	
Total Charges	

REVISION DATE 12/92
PART #137204 FXEM 8/93
FORMAT #158

158

DISTRIBUTION LIST

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Bldg 1405 - 600 Chennault Circle
Maxwell AFB, AL 36112-6424 — 1 cy

DTIC/OCP
8527 John J. Kingman Rd, Suite 0944
Ft Belvoir, VA 22060-6218 — 2 cys

AFSAA/SAI
1580 Air Force Pentagon
Washington, DC 20330-1580 — 1 cy

PL/TL
Kirtland AFB, NM 87117-5776 — 2 cys

PL/HO
Kirtland AFB, NM 87117-5776 — 1 cy

Official Record Copy
PL/SE/Michelle Hedrick — 2 cys

377 ABW/EM — 1 cy
Kirtland AFB, NM 87117-5606

State of New Mexico — 1 cy
Commissioner of Public Lands
Attn: Mr. Tim Callahan
4308 Carlisle Blvd NE, Suite 209
Albuquerque, NM 87107